Commodore

1084 S-D Monitor NTSC/PAL

Service Manual

10/89

Commodore

CONTENTS

SPECIFICATIONS

CRT : 13V 90 in line, 0.41 or 0.42mm Dot pitch, gray face, high resolution

Input signals : Digital RGBI, Analog RGB, NTSC Composite, Separated Video (luma & chroma) and Audio

Input level : Digital RGBI: TTL Analog RGB: Video 0.7 Vpp/75 Sync. TTL Comp., Video, Chroma: 1 Vpp/75

Display size : 233(h)×180(v) mm

Colors : RGBI: 16 colors
Analog RGB: Full colors
Comp: Full colors

Resolution : RGB: 2,000 characters (80 column×25 lines)
Comp: 1,000 characters (40 column×25 lines)

Video band width : RGBI: 15 MHz
Analog RGB: 10 MHz
Composite: 3.5 MHz
Separated Video : 4.2 MHz (Luma & Chroma)

Scanning frequency : Horizontal: 15.75 KHz
Vertical: 60Hz

Audio (Stereo) : Input: 1 Vpp/47K
Output: 1W

Dimensions : 360(W)×376(D)×327.5(H) cm

Weight : Approx. 12 Kg

Power input : 120 VAC, 60Hz, 1A

Power consumption : 75W

*Design, features and specifications are subject to change without notice.

IMPORTANT SERVICE SAFETY INFORMATION

WARNING:
An isolation transformer must be used between the AC supply and the AC plug of the color monitor before servicing or testing is performed on this monitor, since part of the chassis and the heat-sink are directly connected to one side of the AC line which could present a shock hazard. The chassis of the monitor should never be connected ground.
Before servicing is performed, read all the precautions labelled on the CRT, chassis, and on the inside of the cabinet of this monitor.

X-RAY RADIATION WARNING NOTICE

WARNING: PARTS WHICH INFLUENCE X-RAY RADIATION IN HORIZONTAL DEFLECTION. HIGH VOLTAGE CIRCUITS AND PICTURE TUBE, ETC., ARE INDICATED BY (★) IN THE PARTS LIST FOR REPLACEMENT PURPOSES. USE ONLY THE TYPE SHOWN IN THE PARTS LIST.

PRODUCT SAFETY NOTICE

WARNING: FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER RECOMMENDED PARTS. THESE PARTS ARE IDENTIFIED BY SHADING AND BY ( ) ON THE SCEMATIC DIAGRAM.

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NOTICE D'AVERTISSEMENT DE RADIATION AUX RAYONS X

AVERTISSEMENT: LES PIECES QUI INFLUENCENT LES RAYONS X AU COURSE DE LA DEVIATION HORIZONTALE, LES CIRCUITS A HAUTE TENSION ET LE TUBE-IMAGE, ETC. SONT ACCOMPAGNEES D'UN ASTERIQUE (★) DANS LE CATALOGUE DE PIECES DETACHEES. DANS LE CAS D'UN REMPLACEMENT, UTILISER UNIQUEMENT LES MODELES DE PIECES INDIQUES DANS LE CATALOGUE DE PIECES DETACHEES.

NOTICE DE SECURITE

AVERTISSEMENT: POUR ETRE ASSURE D'UNE SECURITE OPTIMENT A TOUT MOMENT, REMPLACER LES COMPOSANTS CRITIQUES UNIQUEMENT PAR LES PIECES RECOMMANDEES PAR LE FABRICANT DE L'APPAREIL, CES PIECES SONT IDENTIFIEES PAR UNE ZONE D'OMBRE ET PAR LE SYMBOLE ( ) SUR LE SCHEMA DE MONTAGE.

The manufacturer's warranty and liabilities will be void if any unauthorized modifications, alterations or additions are made.
For replacement purposes, use the same type or specified type of wire and cable, ensuring that the positioning of the wires is followed (especially for H.V. and power supply circuits). Use of alternative wiring or positioning could result in damage to the set or in a shock or fire hazard.
The picture tube used in this monitor employs integral implosion protection and should be replaced with the tube of the same type number for continued safety.
When handling the CRT, shatter-proof goggles must be worn after completely discharging the high voltage circuit.
Do not lift the picture tube by the neck.

WARNING: BEFORE RETURNING THE MONITOR TO THE CUSTOMER PERFORM THE FOLLOWING SAFETY CHECKS IN ITEMS 1, 2 AND 3 FOR THE CONTINUED SAFETY OF THE SERVICEMENT AND CUSTOMER.

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AVERTISSEMENT: AVANT DE RETOURNER LE MONITEUR AU CLIENT, PROCEDER AUX CONTROLES DE SECURITE DES ITEMS 1, 2 ET 3 POUR ASSURER UNE SECURITE OPTIMUM AU REPARATEUR COMME AU CLIENT.

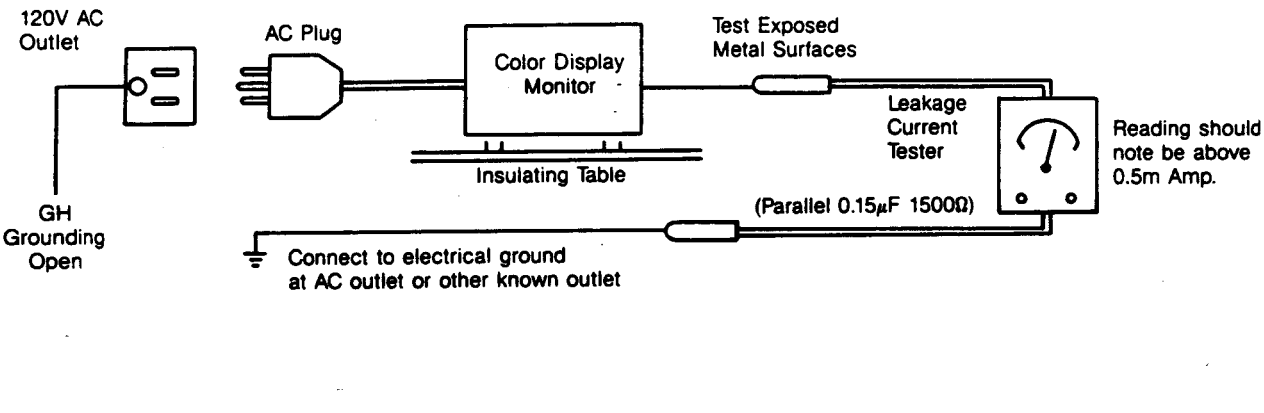
1. Leakage Current Test:

Plug the AC power cord directly into a 120V AC outlet (Do not use an isolation transformer for this test) Use a Leakage Current Tester or a metering system which complies with Underwriters Laboratories (UL 478 Para 20) or CSA. (C22.2 No. 154 Para 6).

Measure the current flowing from all exposed metal parts of the cabinet, including the rear cover, (handle bracket, wooden cabinet, screw heads, video input terminal, control shaft, etc.) to the ground pin of an AC outlet or to a known ground. (water-pipe, conduit, etc.)

This leakage test should be performed with the AC switch ON and repeated with the AC switch OFF. The measured current must be less than 0.5 milliamp.

Any measurements not within the limits outlined above are indicative of a potential shock hazard and corrective action must be taken before returning the instrument to the customer.



AC Leakage Test

2. Resistance Test:

With the AC plug is removed from the 120VAC outlet, place a jumper across the two attachment plug prongs except Grounding Pin. Turn the switch ON. Using an ohmmeter, connect one lead to the jumped AC plug and touch the other lead to each exposed video input terminal, and to any exposed metal parts. The resistance measured should not be less than 1.0 megohm or grater than 5.2 megohms. Any resistance value below or above this range indicates an abnormality which requires corrective action.

Repeat the test with the Ac switch in the OFF position.

3. Wire Routine:

In case of removing Wire Clamp during service, make sure to return Clamp and Wiring routes to original positions after servicing.

INSTALLATION AND CHASSIS PARTS LOCATION

INSTALLATION OF THIS COLOR MONITOR CHASSIS AND INITIAL CHECK POINTS

When installing this color monitor' chassis, first check operation on a black and white telecast. Check and if necessary, adjust centering, size, and locus. Observe the picture for proper black and white reproduction (tracking) over all areas of the screen. No objectionable color shading or fringing should be evident. If shading or fringing is evident, degauss the monitor.

In most instances after installation, a technician need only degauss the faceplate area and touch-up the static (center) convergence.

CHASSIS PARTS LOCATION

The degaussing coil should be moved slowly around the front faceplate of the picture tube and around the sides and front of the monitor. The coil should then be withdrawn slowly to a distance of at least six to ten feet before disconnecting from the AC supply.

This monitor chassis is equipped with an automatic degaussing circuit which effectively demagnetizes the faceplate each time the monitor is switched ON after having been OFF for at least ten minutes.

Note:
See 'SERVICE ADJUSTMENT' for details of adjusting procedures.

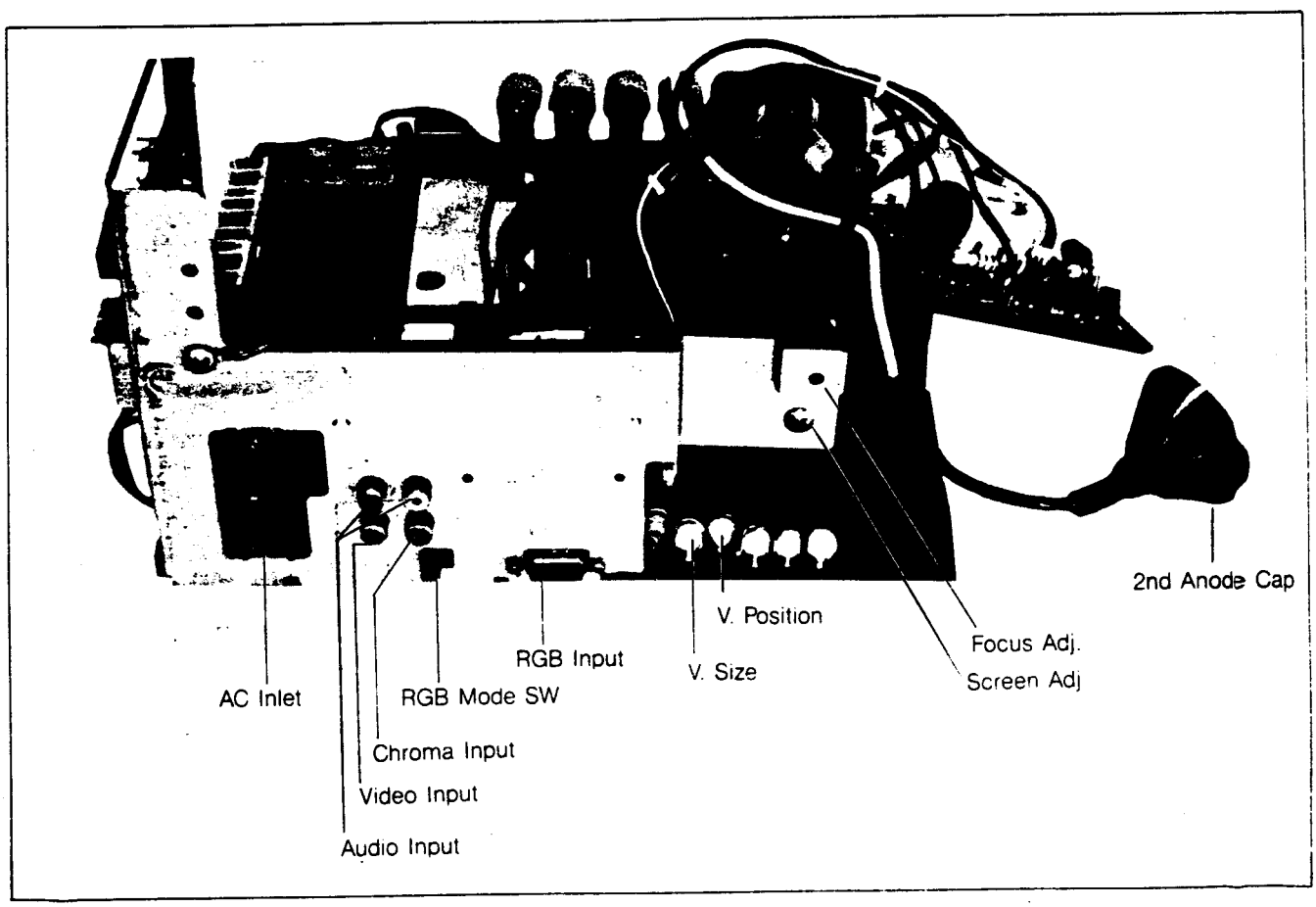


Fig. 1

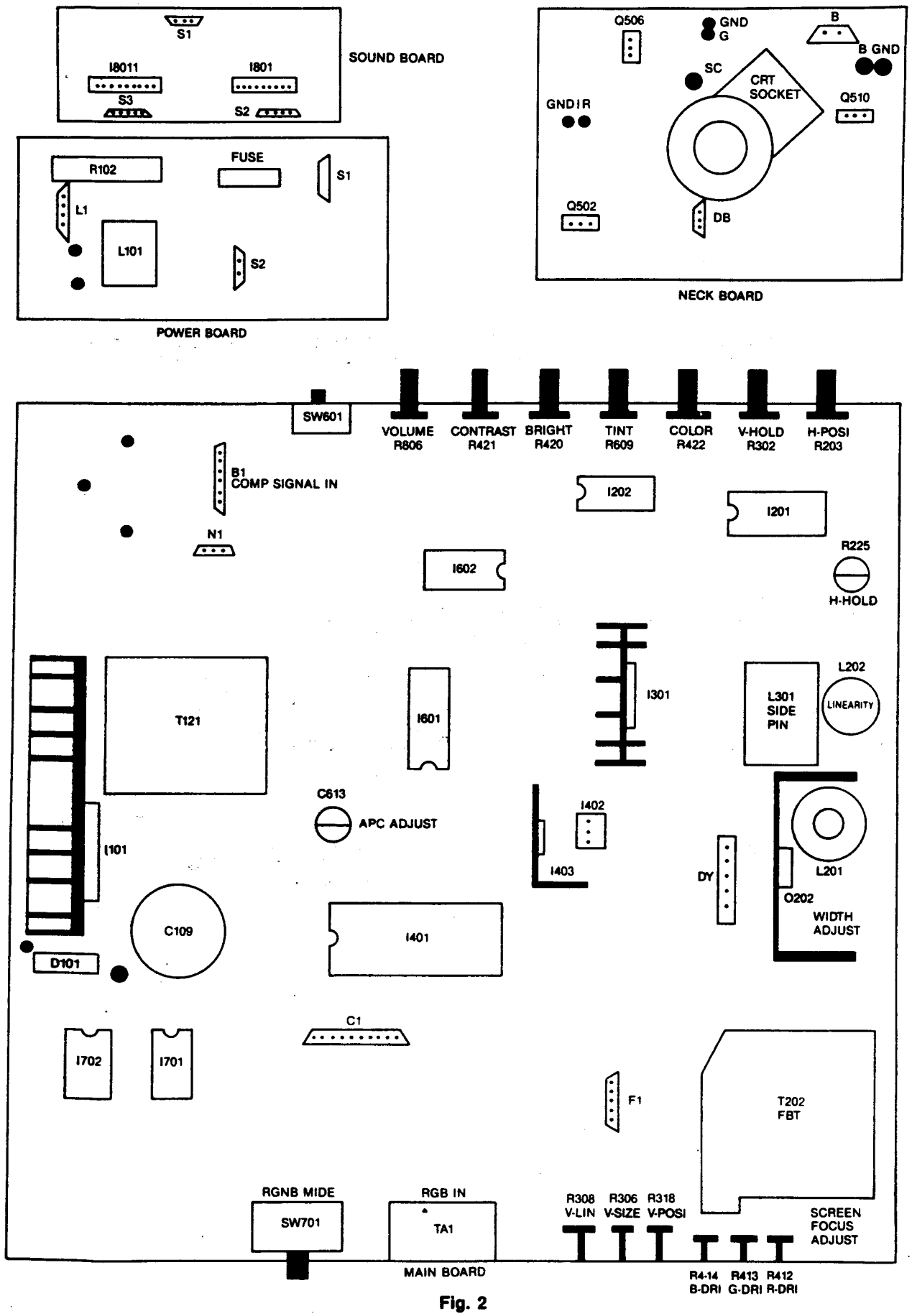

S1
I8011
I801
S3
S2
SOUND BOARD
R102
FUSE
S1
L1
L101
S2
POWER BOARD
Q506
GND
G
B
B GND
SC
CRT
SOCKET
Q510
GND IR
Q502
DB
NECK BOARD
SW601
VOLUME
R806
CONTRAST
R421
BRIGHT
R420
TINT
R609
COLOR
R422
V-HOLD
R302
H-POSI
R203
B1
COMP SIGNAL IN
N1
I202
I201
I602
R225
H-HOLD
T121
I601
I301
L301
SIDE
PIN
L202
LINEARITY
C613
APC ADJUST
I101
I402
I403
DY
L201
O202
WIDTH
ADJUST
C109
D101
I401
C1
I702
I701
F1
T202
FBT
RGNB MIDE
SW701
RGB IN
TA1
MAIN BOARD
R308
V-LIN
R306
V-SIZE
R318
V-POSI
SCREEN
FOCUS
ADJUST
R4-14
B-DRI
R413
G-DRI
R412
R-DRI

Fig. 2

SERVICE INSTRUCTIONS

CHASSIS REMOVAL (SEE FIGS. 3/4)

1. Remove the six screws securing the rear cover of the cabinet. (See Fig. 3)
2. Pull the rear cabinet about 10cm to the rear.
3. Remove (pull to the rear) the speaker connection near the audio output at the left side of the cabinet. (See Fig. 4)
4. Remove the rear cabinet.
5. Remove solder connection of the black wire connecting CRT grounding and neck p.c. board, then remove the neck p.c. board from the picture tube. (See Fig. 5)
6. Remove the second anode cap.
7. Remove the connectors as follows:
   1) Deflection yoke connector
   2) Degaussing coil connector
   3) Sound controls connector
   4) Speaker connector
   5) Power indicator connector
8. Remove the two screws securing the power switch.
9. Take the chassis out of the cabinet.
10. To install the chassis, repeat the above procedure in reverse order.

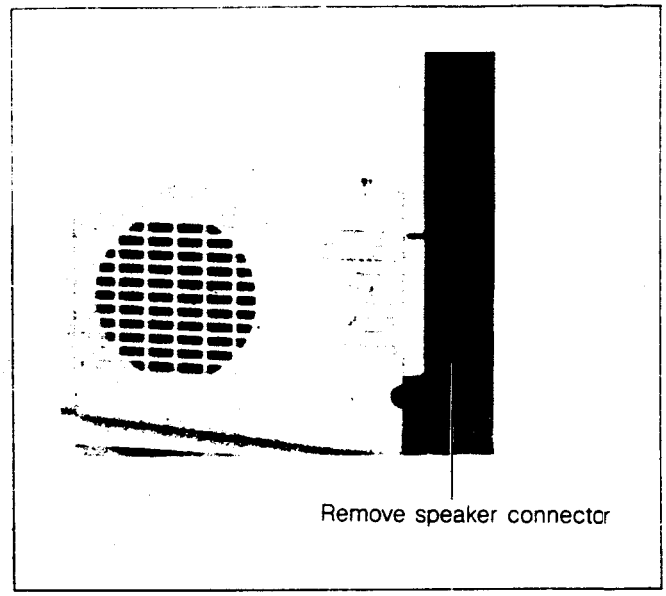


Fig. 4

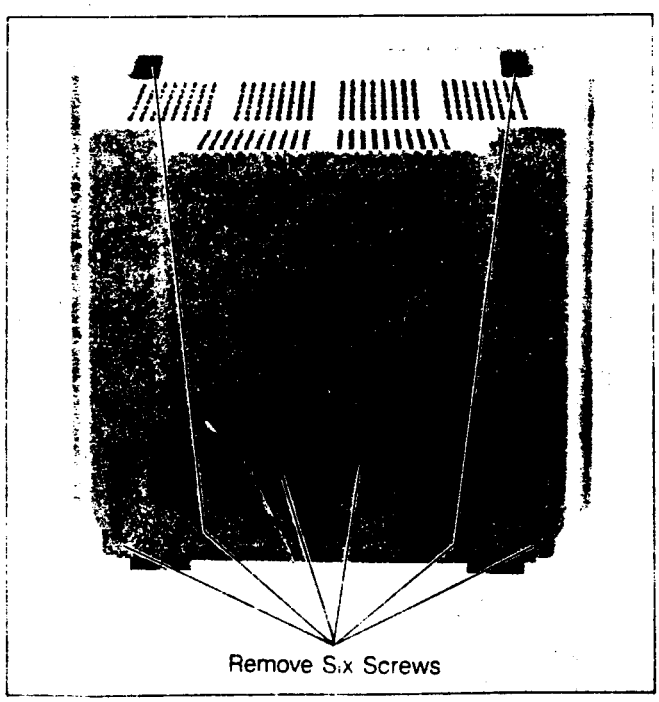


Fig. 3

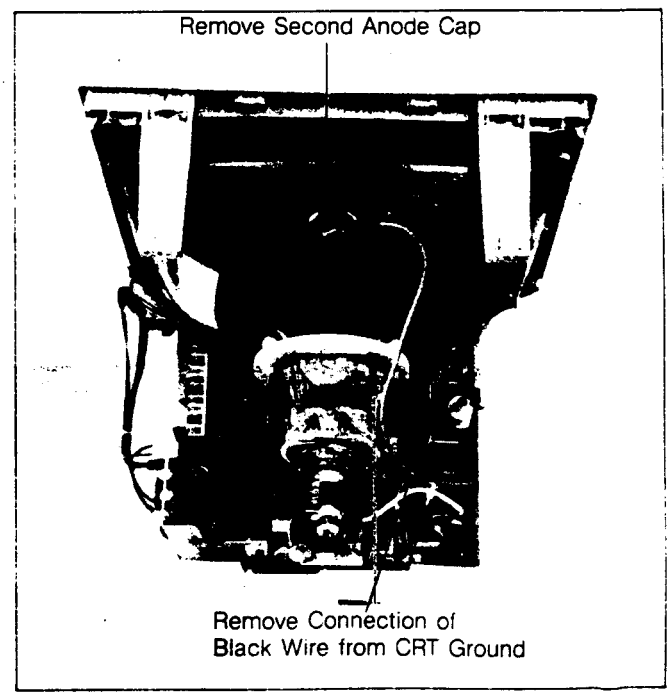


Fig. 5

MAIN CHASSIS SERVICING

1. Remove the rear cabinet.
2. Repairing of main chassis can be done easily, if stood as shown in Fig. 6.

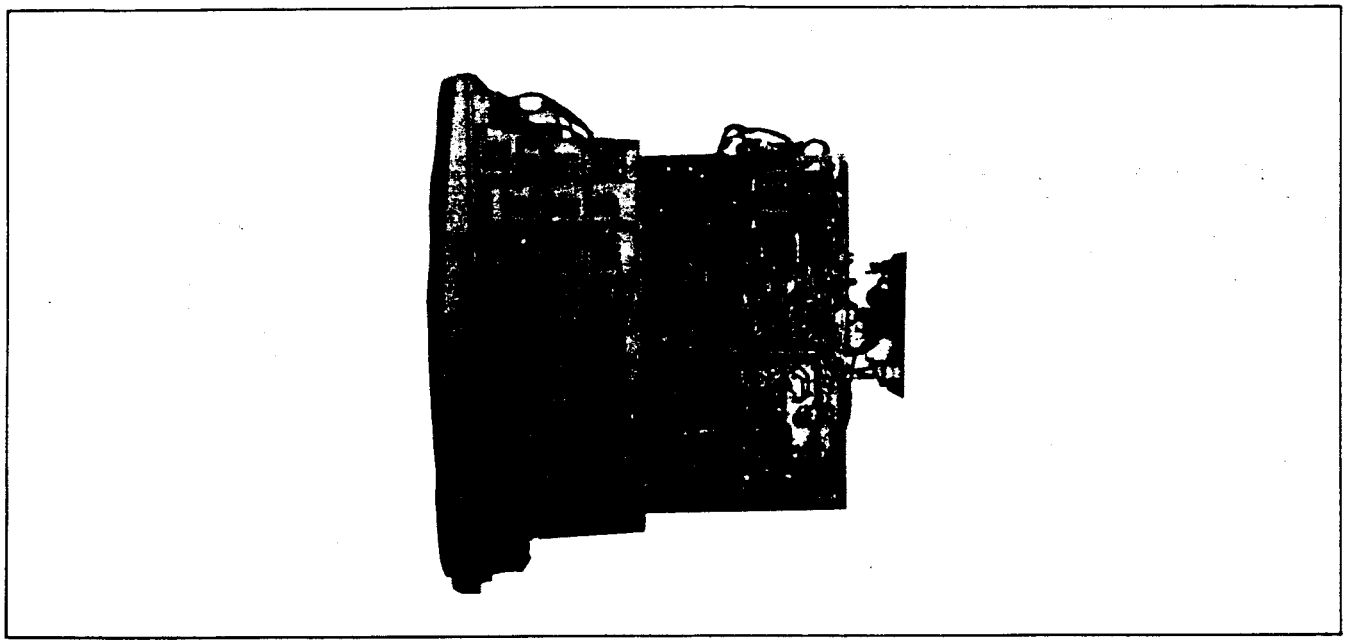


Fig. 6

PICTURE TUBE REMOVAL

In order to remove or replace the picture tube, the chassis must first be removed. Refer to Chassis Removal procedure. After the chassis has been removed, proceed as follows.

1. Loosen the clamping screws on the deflection yoke, purity and static convergence magnet, and remove them.
2. Remove four screws securing the picture tube to the front cabinet.

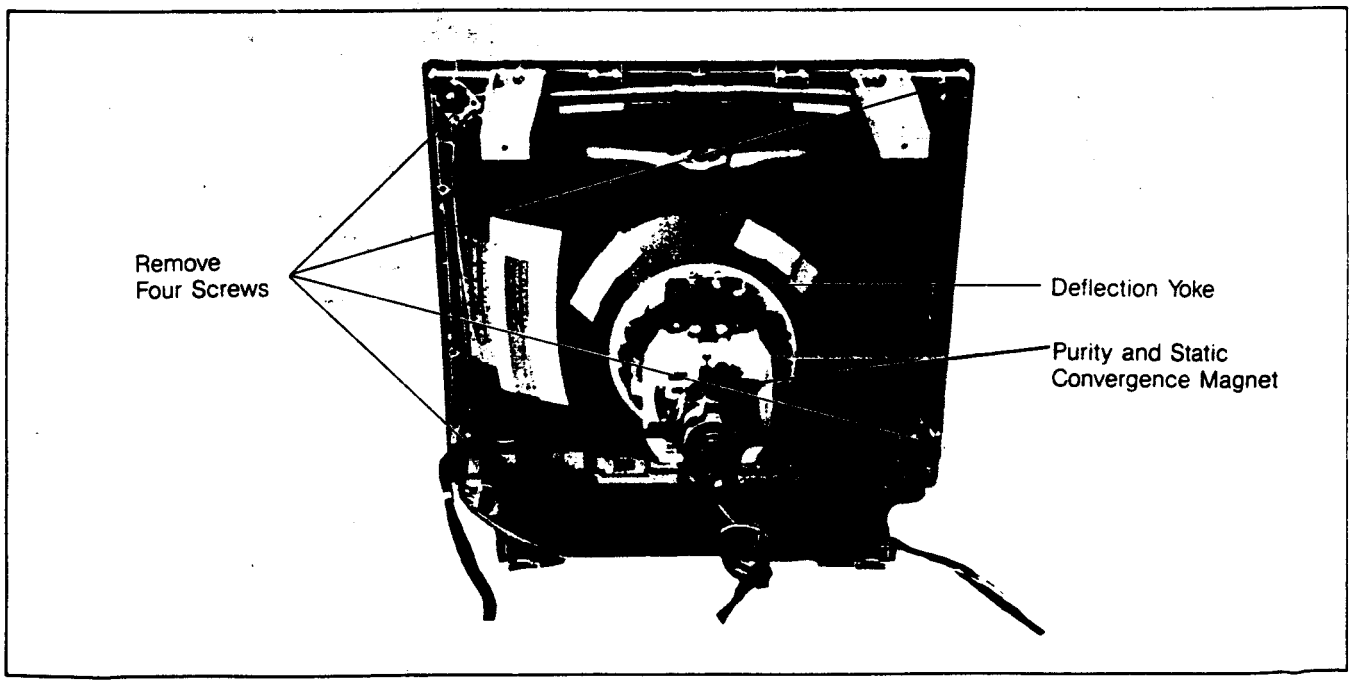


Fig. 7

PRECAUTIONS FOR REPAIRS

1. Check for bad contacts on connectors on the main PC board and elsewhere by applying hand pressure.
2. Check AC power supply for problems-e.g. blown fuse, bad switch or AC outlet.
3. Check for intermittents or defective soldering on the main board by striking the reverse side of the board gently with an insulated bar.
4. When soldering PC boards, limit the soldering iron temperature to 500°F (200°C) to avoid peeling of the foil.
5. When soldering transistors or other semiconductors, use tweezers or a heat sink clip as shown in Fig. 8 to prevent heat damage.

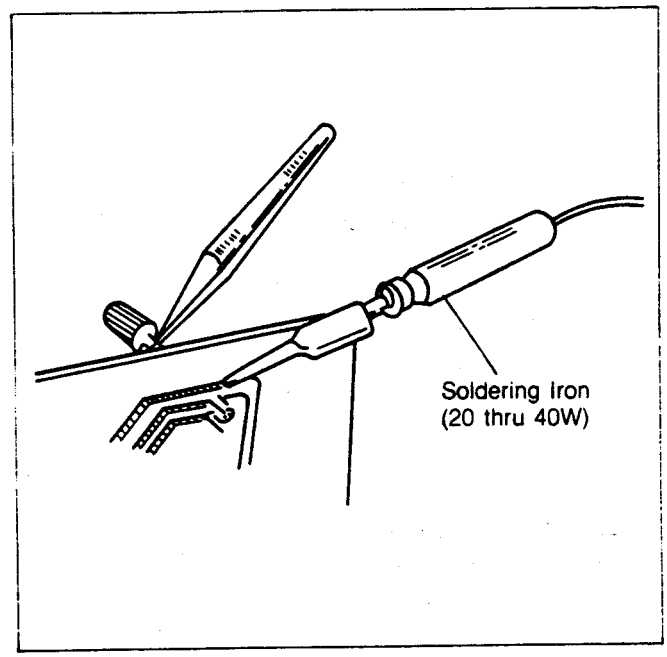


Fig. 8

TROUBLESHOOTING

As major parts of this chassis employ ICs, defects can often be isolated by referring to the table of symptoms in Table 1. Additional checks of transistor and IC DC voltages and waveforms as shown on the schematic will assist in pinpointing the problem area. Remember also to check for faulty resistors and capacitors, etc. around defective ICs and transistors.

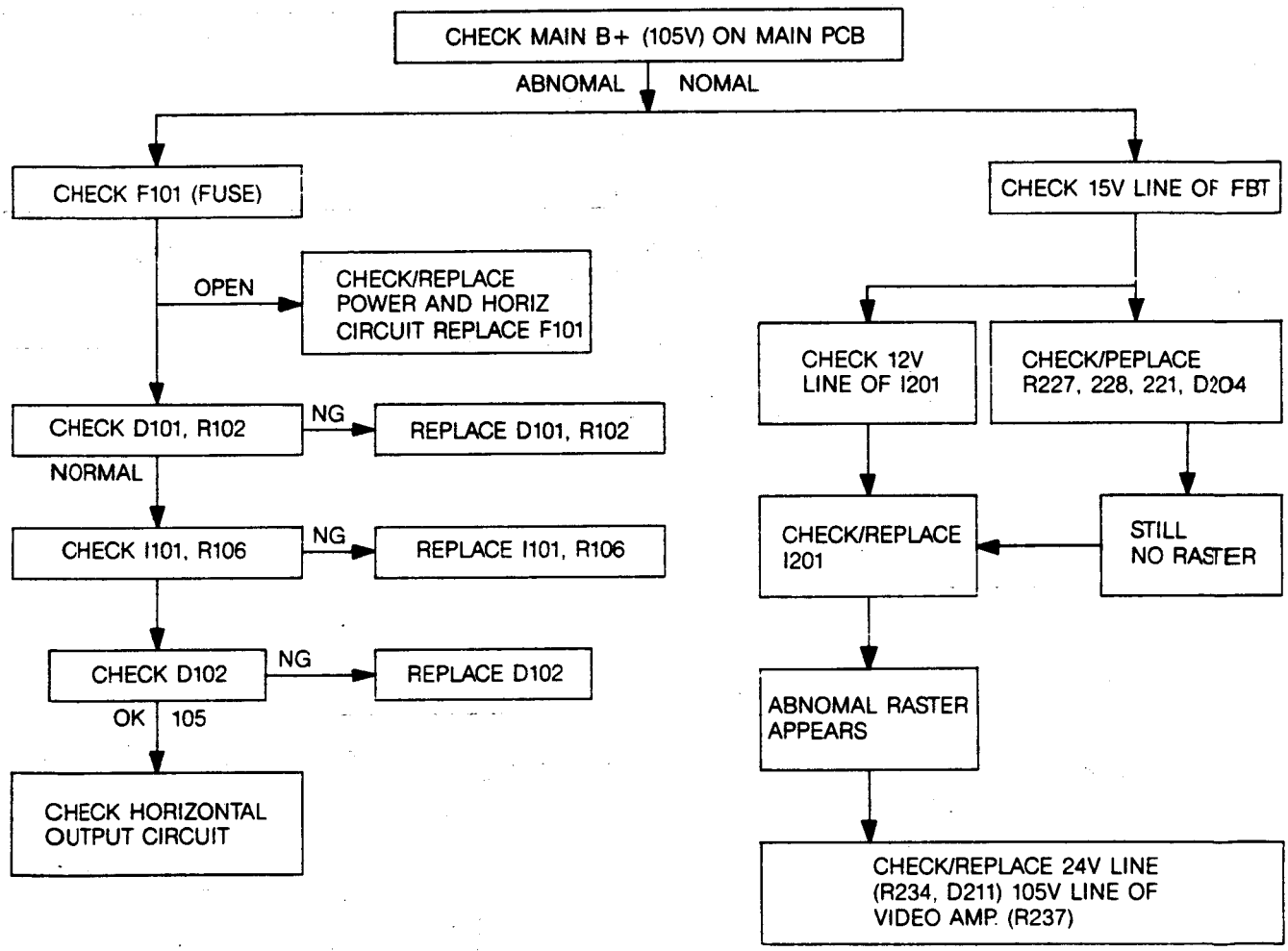
IC/TR	SYMPTOM
I101: POWER SUPPLY CIRCUIT	NO RASTER
I201: HORIZ OSC, DRIVE, SYNC SEP CIRCUIT	NO RASTER, NOPICTURE, NO HIGH VOLTAGE UNSTABLE PICTURE
I202: SYNC PROCESSING CIRCUIT	RGB MODE UNSTABLE PICTURE
I301: VERT OSC, OUTPUT CIRCUIT	HORIZONTAL LINE ONLY, POOR VERTICAL SCAN
I401: VIDEO PREAMP, COMPOSIT COLOR MATRIX, MODE SWITCHING RGB AND COMPOSIT SIGNAL, AUTO OUT-OFF CONTROL, CIRCUITS	NO PICTURE OR POOR PICTURE, NO AUTO CUT-OFF CONTROL, NO MODE SWITCHING OF COMPOSITE AND RGB SIGNAL
I402: 12V REGULATOR	NO PICTURE OR POOR PICTURE
I403: 5V REGULATOR	RGB MODE NO PICTURE, POOR PICTURE
I601: COMPOSIT COLOR CIRCUIT	NO COLOR, UNSTABLE COLOR
I602: MODE SWITCHING CIRCUIT	NO MODE SWITCHING, NO PICTURE, UNSTABLE PICTURE
I701, I702: TTLI CIRCUIT	TTL RGB MODE. NO PICTURE. POOR PICTURE
I801, I8011: STEREO SOUND CIRCUIT	NO SOUND OR POOR SOUND
Q201: HORIZ DRIVE CIRCUIT	NO PICTURE, NO HIGH VOLTAGE
Q202: HORIZ OUTPUT CIRCUIT	NO PICTURE, NO HIGH VOLTAGE
Q203: SYNC SWITCHING CIRCUIT	RGB MODE, UNSTABLE PICTURE
Q601: COLOR INPUT BUFFER CIRCUIT	NO COLOR, POOR COLOR
Q602: COMPOSIT BUFFER CIRCUIT	COMP/SEP MODE, NO VIDEO OR POOR VIDEO
Q701, Q702, Q703: TTL BUFFER	TTL MODE, NO PICTURE OR POOR PICTURE
Q704: TTL COLOR MATRIX CIRCUIT	TTL MODE, NO BROWN COLOR, OR UNSTABLE COLOR
Q501-Q504: R OUTPUT CIRCUIT	NO RED PICTURE
Q505-Q508: G OUTPUT CIRCUIT	NO GREEN PICTURE
Q509-Q512: B OUTPUT CIRCUIT	NO BLUE PICTURE

TROUBLESHOOTING CHARTS

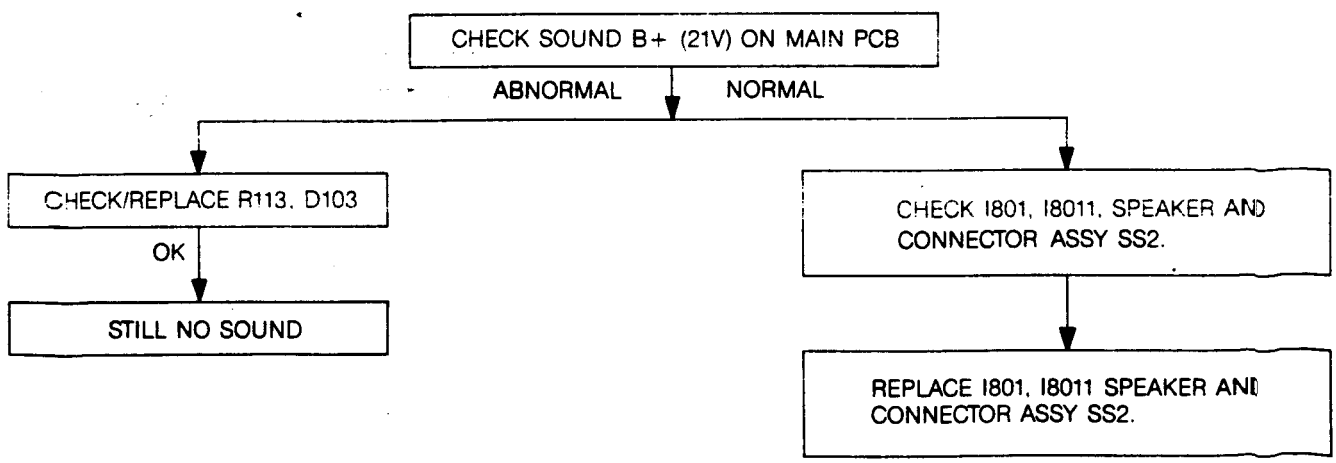
The following charts are devoted to troubleshooting which, if followed carefully, will assist you in tracking down a fault to the collect stage. In order to utilize the charts (fault trees), firstly establish the complaint, i.e. no raster.

Locate the chart applicable and then progress through the various alternatives until a final block the offending components or stage.

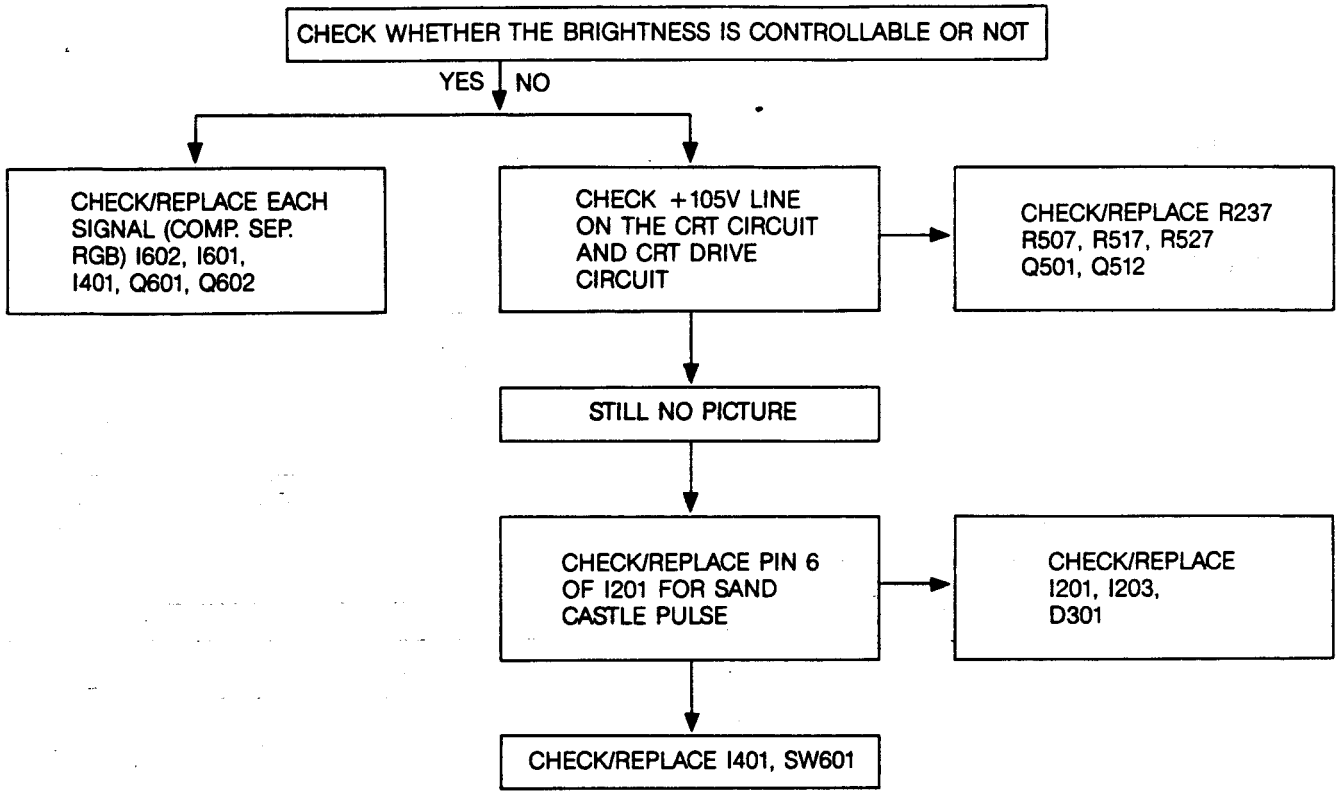
1. NO RASTER



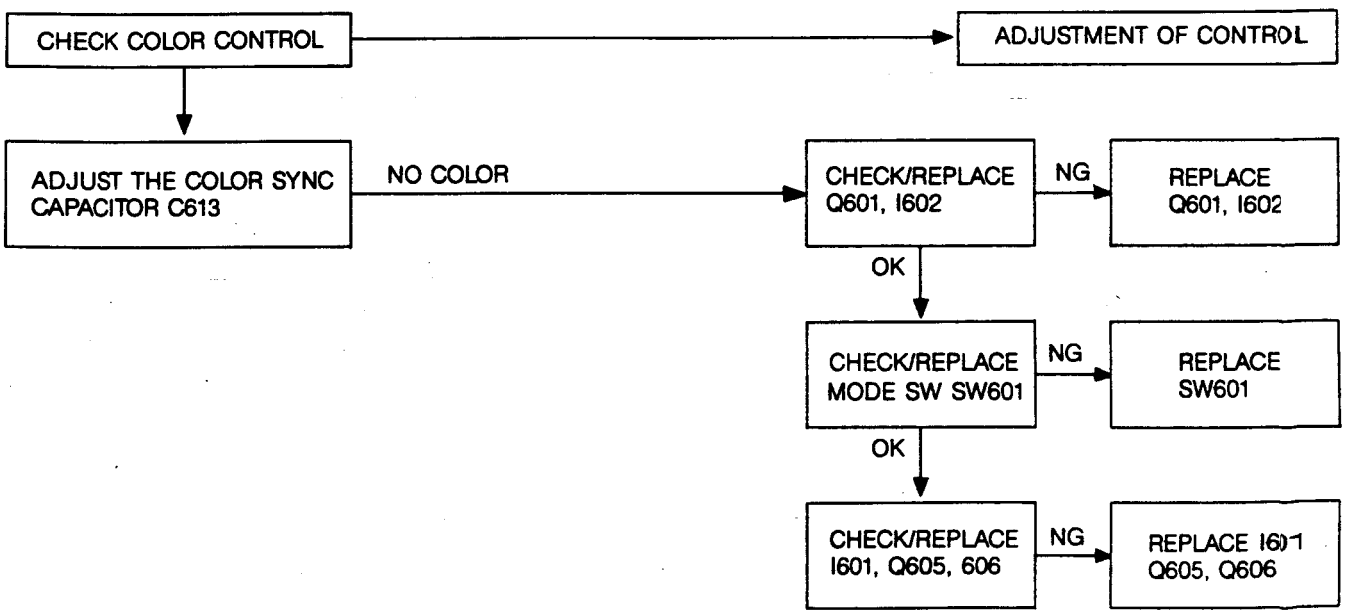
2. NO SOUND



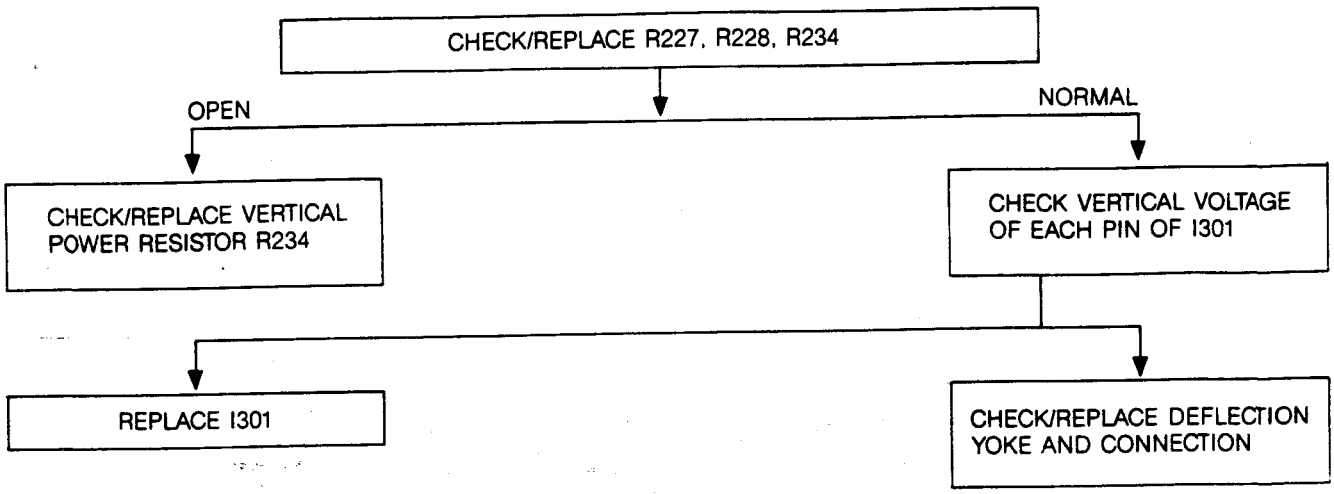
3. NO PICTURE



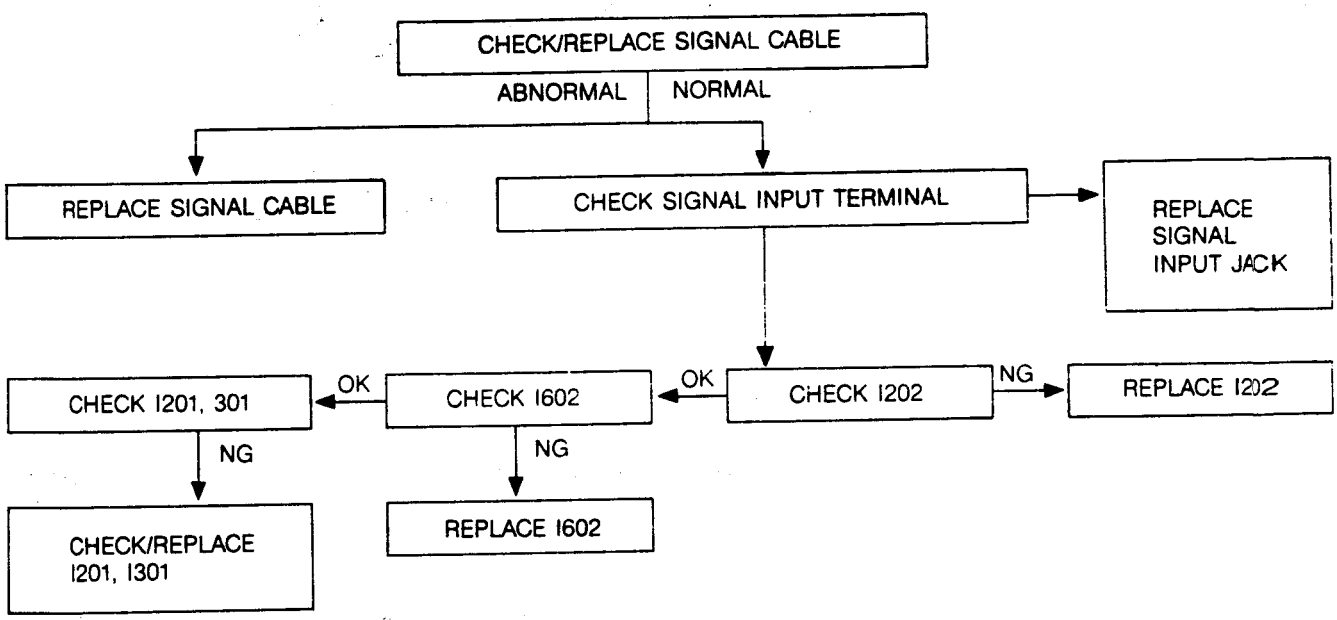
4. NO COLOR (FOR COMP & SET MODE)



5. NO VERTICAL SCAN (ONE HORIZ, ONE LINE RASTER)



6. OUT OF VERTICAL SYNC AND HORIZ. SYNC (COMPOSIT SYNC)



DESOLDERING OF ICS AND TR

The following tools are suggested for desoldering semiconductors:

1. Desoldering tools

a) Hand suction type-Solda-Pull® (model SS011, Edsyn Inc. Van Nuys, CA) or equivalent.

b) Wire-Wick type-Solder-Wicle® (size=4, Solder Removal Co., Covina, CA) or equivalent.

2. Soldering Iron-Maximum wattage recommended is 40W. Higher power soldering irons may damage the copper foil of board.

Note:

When desoldering parts. heat the joint and remove the solder quickly. The PC foil may peel from the board if heat is applied for too long.

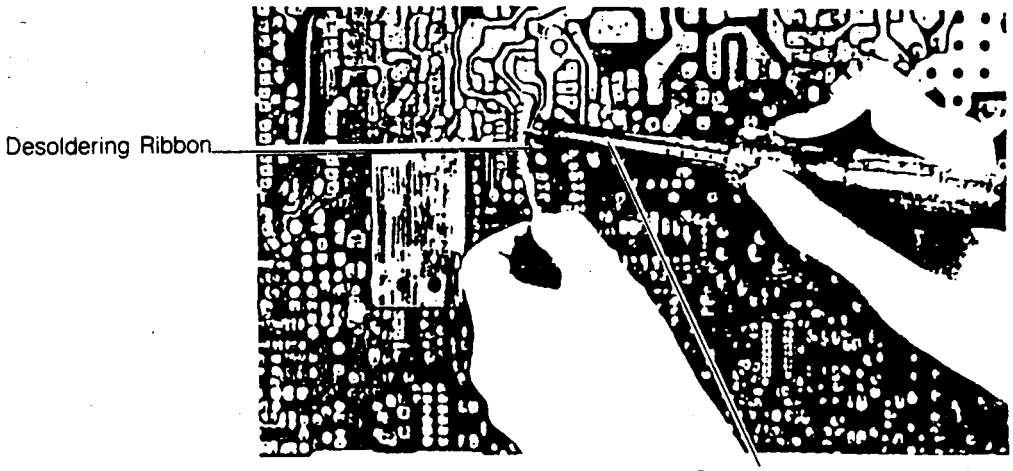


Fig. 9

FOCUS ADJUSTMENT

Adjust the focus control, located on the H.V unit (T202) for maximum overall definition and fine picture detail with brightness and contrast controls set at normal viewing levels.

VERTICAL SIZE (R306) ADJUSTMENT

The vertical size (height) control is the screwdriver adjustment that is accessible through the front cover. Location of the control is shown in Figs. 1 and 10. These controls must be adjusted until the correct picture or test pattern is obtained.

CIRCUIT PROTECTION

4.0A fuse, mounted on the main PC board, has beenprovided to protect the power out put circuit. See Figs. 2and 10.

HORIZONTAL HOLD (R225) ADJUSTMENT (SEE FIGS. 2 AND 10)

Receive the color signal.

Set the brightness and contrast controls to a normal position A warm-up period of at least five minutes should be allowed and alignment should be done.

1. Connect a jumper wire between pin 12 of I201 and ground line.
2. Adjust the horiz, hold control (R225) until the pictue is stable. (Tune R225 to 15.734 KHz)

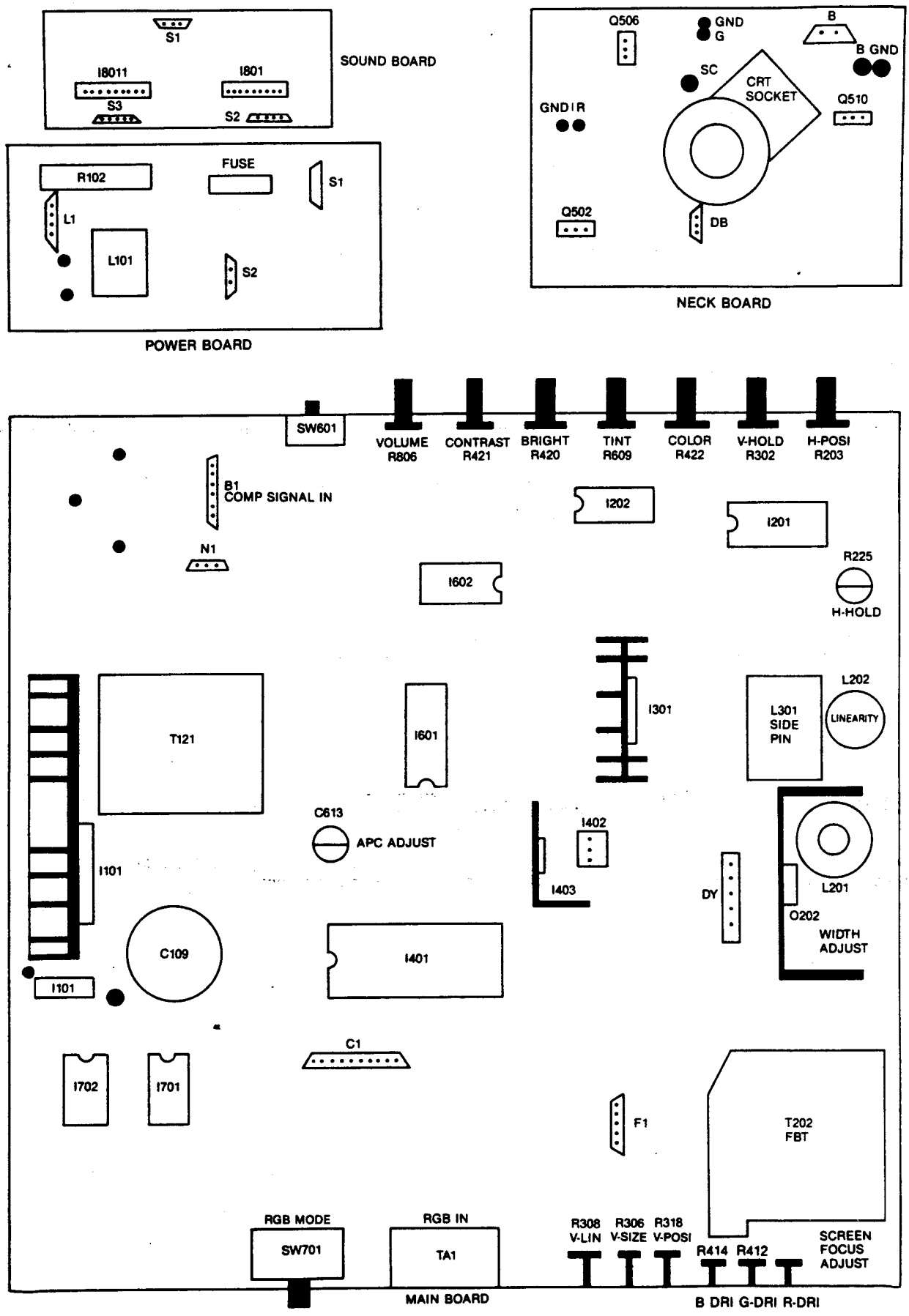

S1
SOUND BOARD
I8011
I801
S3
S2
R102
FUSE
S1
L1
L101
S2
POWER BOARD
Q506
GND
G
B
B GND
SC
CRT
SOCKET
Q510
GND I R
Q502
DB
NECK BOARD
SW601
VOLUME
R806
CONTRAST
R421
BRIGHT
R420
TINT
R609
COLOR
R422
V-HOLD
R302
H-POSI
R203
B1
COMP SIGNAL IN
N1
I202
I201
I602
R225
H-HOLD
T121
I601
I301
L301
SIDE
PIN
L202
LINEARITY
C613
APC ADJUST
I402
I403
DY
L201
O202
WIDTH
ADJUST
I101
C109
I401
I101
C1
I702
I701
F1
T202
FBT
RGB MODE
SW701
RGB IN
TA1
R308
V-LIN
R306
V-SIZE
R318
V-POSI
R414
R412
SCREEN
FOCUS
ADJUST
MAIN BOARD
B DRI G-DRI R-DRI

Fig. 10

APC ADJUSTMENT (SEE FIG. 10)

This adjustment should be made only when the chroma/video (I601) or parts of the APC circuit have been replaced, or when the picture colors are unstable. For adjustment, use the APC, ADJ control (I613).

Procedures

1. Apply a color bar signal to the video input terminal.
2. Turn the color control fully clockwise and position the tint control at the mechanical center.
3. Connect a jumper wire between pin 11 of I201 and ground line.
4. Turn the APC ADJ. control (C613) with an insulated screwdriver until the color bar on the screen is synchronized.
5. Removed the jumper wire and capacitor.

HIGH VOLTAGE CHECK

High voltage is not adjustable but must be checked to verify that the monitor is operating within safe and efficient design limitations as specified:

1. Remove cabinet back.
2. Operate monitor for at least 15 minutes at 120V AC line with video signal or test signal properly tuned in.
3. Rotate the brightness and contrast controls to maximum clockwise position.
4. Connect an accurate high voltage meter to CRT anode.
   Reading should be between 22 KV and 24 KV.

VERTICAL POSITION CONTROL (R318) ADJUSTMENT (SEE FIG. 10)

The vertical position control (R318) is the VR which controls the vertical position of the picture.
If the vertical position of the picture is not at the center of the picture tube, adjust the vertical position by turning this control.

VERTICAL LINEARITY CONTROL (R308) ADJUSTING (SEE FIG. 10)

The vertical linearity control (R308) is the VR which controls the vertical lineatrity of the picture.
After received cross hatch pattern, adjust the vertical linearity by turning this control.

SCREEN ADJUSTMENT

It is important to adjust the screen volume in Auto white Balance system. Receive cross hatch signal. Set the contrast and bright volume to a maximum position. Turn the screen volume (see. fig 10) to the clockwise until find out retrace line. After that, Turn the screen volume to the unclockwise until just disappear joint.
Confirm the state of video cut off with contrast and bright control.
If unstable cutoff screen, readjust with above action.

COLOR PURITY ADJUSTMENT

For best results, it is recommended that the purity adjustment be made in the final location. If the monitor will be moved, perform this adjustment with it facing east or west. The monitor must have been operating 15 minutes prior to this procedure and the faceplate of the CRT must be at room temperature.
The monitor is equipped with an automatic degaussing circuit. However, if the CRT shadow mask has become excessively magnetized, it may be necessary to degauss it with a manual coil. Do not switch the coil OFF while the raster shows any effect from the coil.
Purity magnets are used for color purity and vert, centering adjustment.
Purity adjustment procedure is as follows.

NOTE:
Refore attempting any purity adjustments, the receiver should be operated for at least 15 minutes.

1. Demagnetize the picture tube and cabinet using a degaussing coil.
2. Turn the CONTRAST and BRIGHTNESS controls to maximum.
3. Open the R509 and R529 to provide only a green raster.
4. Loosen the clamp screw holding the yoke, and slide the yoke brackward to provide vertical green belt (zone) in the picture screen.
5. Remove the Rubber Wedges.
6. Rotate and spread the tabs of the purity magnet (See Fig. 7) around the neck of the picture tube until the green belt is in the center of the screen. At the same time, center the raster vertically.
7. Move the yoke slowly forward until a uniform green screen is obtained.
   Tighten the clamp screw of the yoke temporarily.
8. Check the purity of the red and blue raster by opening the cathode resistor.
9. Obtain a while raster, referring to "Black and white tracking". (Sold the opened resistor)
10. Proceed with convergence adjustment.

STATIC CONVERGENCE ADJUSTMENT

A recently developed deflection yoke and electron guns construction has been used on this equipment in combination with in-line guns and black stripe screen to make a barrel-type magnetic-field distribution for vertical deflection and pin-cushion-type magnetic field for horizontal deflection with which a self-converging system can be obtained, this type is different from conventional unity magnetic field distribution type deflection yoke, 4-pole magnets and 6-pole magnets are employed for static convergence instead of a convergence yoke.

1. A crosshatch signal should be connected to the video input terminal of the monitor.
2. Adjust the BRIGHTNESS and CONTRAST Controls for well defined pattern.
3. Adjust two tabs of the 4-pole Magnets to change the angle between them (See Fig. 11) and superimpose red and blue vertical vertical lines in the center area of the picture screen. (See Fig. 12)
4. Turn both tabs at the same time keeping their angles constant to superimpose red and blue horizontal lines at the center of th screen. (See Fig. 12)
5. Adjust two tabs of 60-pole Magnets to superimpose red/blue line with green one. Adjust the angle affects the vertical lines and rotating both magnets affects the horizontal lines.
6. Repeat adjustments 3, 4, 5 keeping in mind red, green and blue movement, because 4-pole Magnets and 6-pole Magnets interact and make dot movement complex.

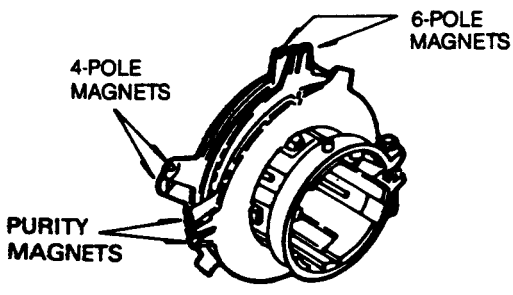


Fig. 11 CONVERGENCE MAGNET ASSEMBLY

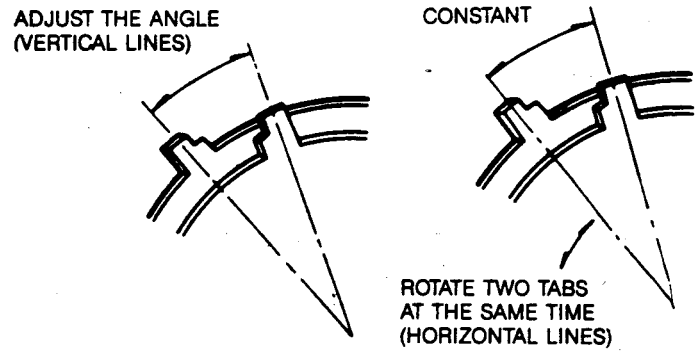
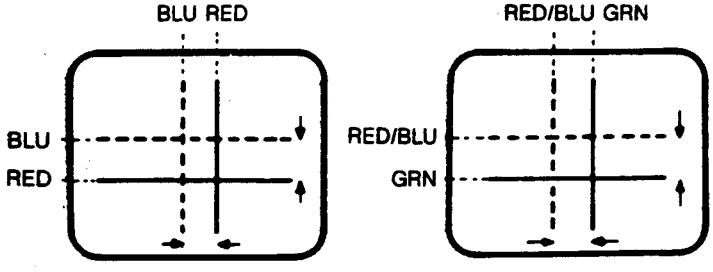


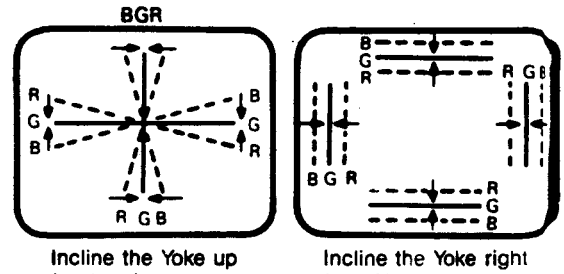
Fig. 13 ADJUSTMENT OF MAGNETS



4-Pole Magnets Movement

6-Pole Magnets Movement

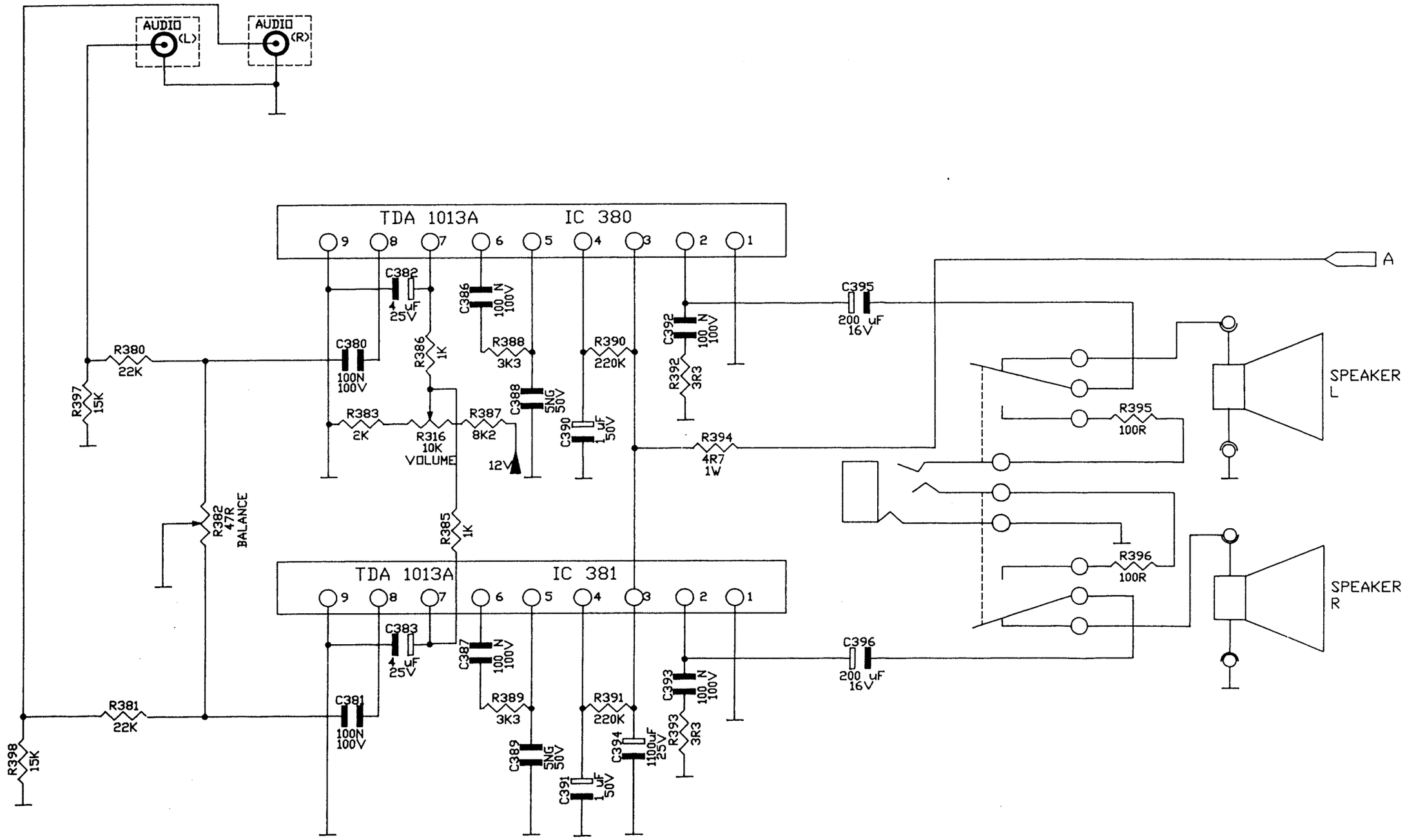
Fig. 12 CENTER CONVERGENCE BY CONVERGENCE MAGNETS



Incline the Yoke up (or down)

Incline the Yoke right (or left)

Fig. 14 CIRCUMFERENCE CONVERGENCE BY DEF. YOKE



1084 P-S SCHEMATIC

PRECISE ADJUSTMENT OF DYNAMIC CONVERGENCE (SEE FIGS. 8-13 AND 14)

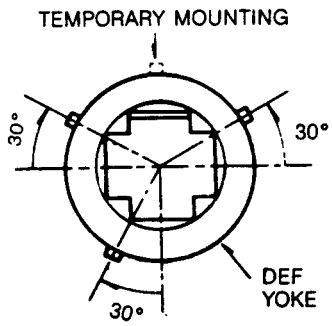
NOTE:
This adjustment requires trubber Wedge Kit.

1. Loosen the clamping screw of deflection yoke to allow the yoke to tilt.
2. Place a wedge as shown in Fig. 15 temporarily. (Do not remove cover paper on adhesive part of the wedge.)
3. Tilt front of the deflection yoke up or down to obtain better convergence in circumference. (see Fig. 14) Push the mounted wedge into the space between picture tube and the yoke to hold the yoke temporarily.
4. Place other wedge into bottom space and remove the cover paper to slick.
5. Tilt front of the yoke right or left to obtain better convergence in circumference. (See Fig. 14)
6. Hold the yoke position and put another wedge in either upper space.
   Remove cover paper and stick the wedge on picture tube to hold the yoke.
7. Detach the temporarily mounted wedge and put it in another upper space.
   Stick it on picture tube to fix the yoke.
8. After placing three wedges, recheck overall convergence.
   Tighten the screw firmly to hold the yoke tightly in place.
9. Stick 3 adhesive tapes on wedges as shown in Fig. 15.

BLACK AND WHITE TRACKING

The purpose of this procedure is to optimize the picture tube to obtain a good black and white picture at all brightness levels, while at the same time, achieving maximum usable brightness. Normal purity adjustment must precede this procedure.

1. Set the Video mode switch to SEP Mode position.
2. Connect the black signal to SEP input terminal.
3. Set the brightness and contrast control at the mechanical Max position.
4. Rotate the R.G.B. drive controls to midrange.
5. Rotate screen VR fully counter clockwise until retrace lines appear on the screen.
6. Slowly turn the screen control on FBT anticlockwise until retrace lines just disappear on the screen for Auto Cut off control.
7. Receive the white signal.
8. Adjust R.G.B. drive controls (R412, R413, R414) to produce a hi-lite white screen.
9. Set the brightness and picture controls to minimum.
   Then, the raster should appear dark.
10. Move the brightness control until a dim raster is obtained.
11. If necessary, touch-up adjustment of the screen controls to obtain best white uniformity on the CRT screen.
12. Set the brightness and picture controls at the mechanical center position.
    If necessary adjust the R.G.B. drive controls to produce a uniform black and white picture.



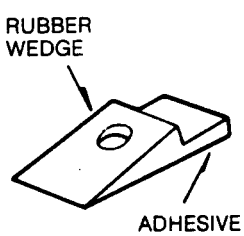


Fig. 15 Rubber Wedges Location

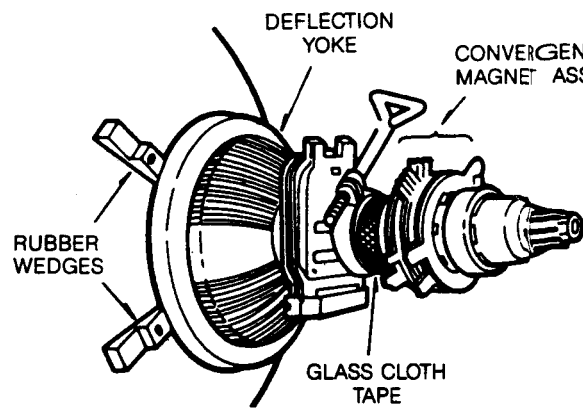


Fig. 16 Picture Tube Neck Components Location

SERVICE INFORMATION

1. REAR CONNECTION PANEL

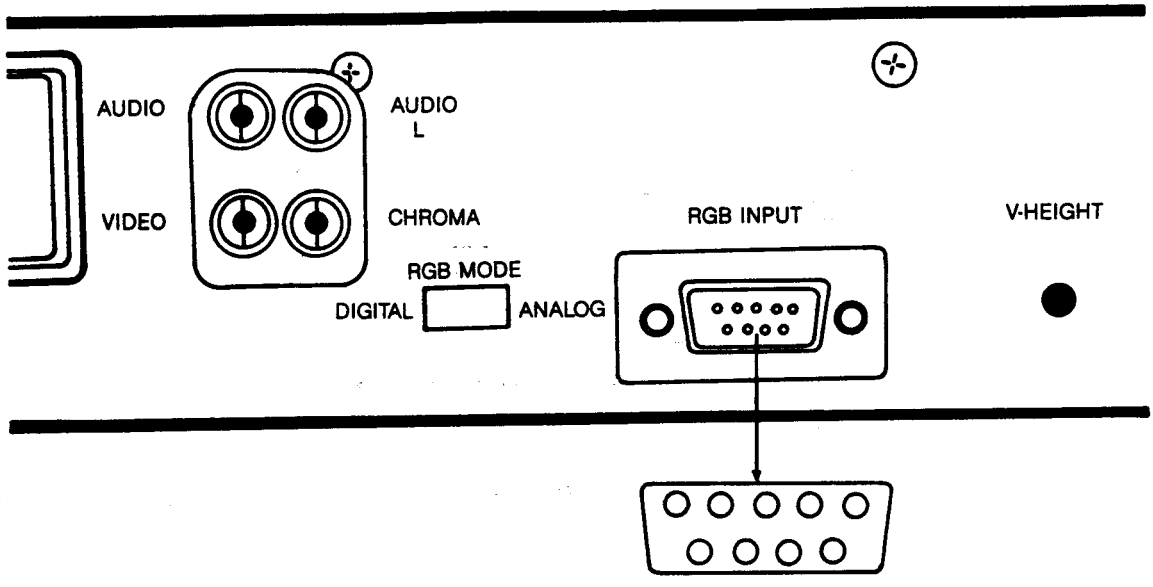


Fig. 17

Pin. No.	DIGITAL	ANALOG
1	Ground	Ground
2	Ground	Ground
3	Red	Red
4	Green	Green
5	Blue	Blue
6	Intensity	—
7	—	Sync.
8	H. Sync.	—
9	V. Sync.	—
Shell	Shield	Shield
Polarity	Video·····Positive Sync.·····Negative or Positive	Video·····Positive Sync.·····Negative

2. POWER P.C. BOARD

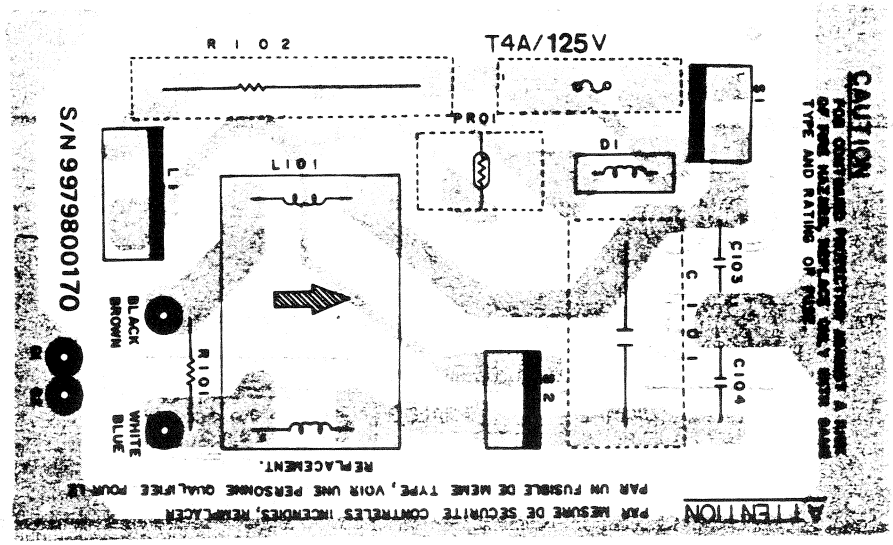


Fig. 18-a Top View

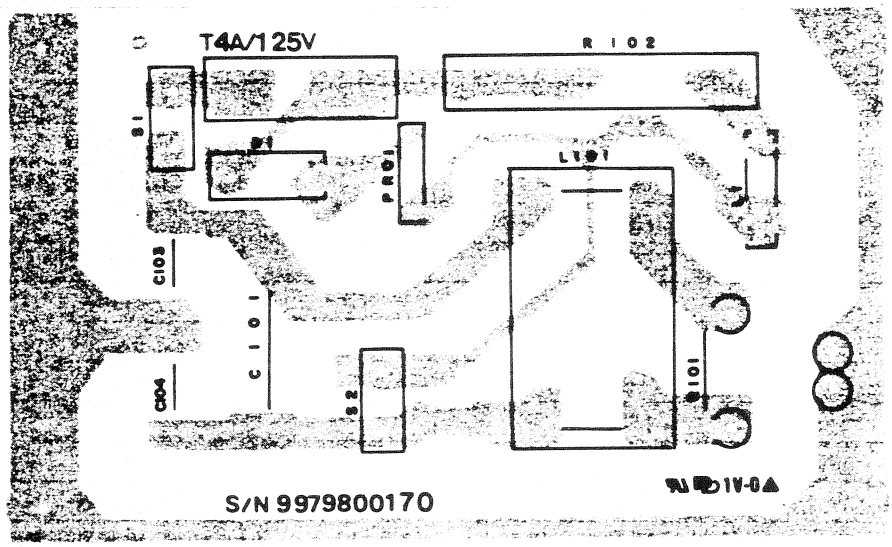


Fig. 18-b Bottom View

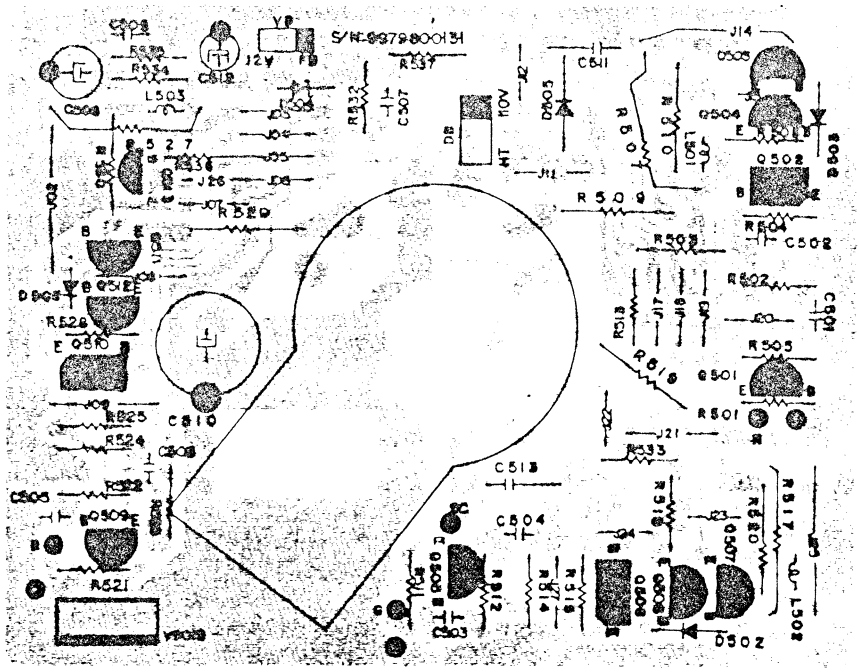


Fig. 19-a Top View

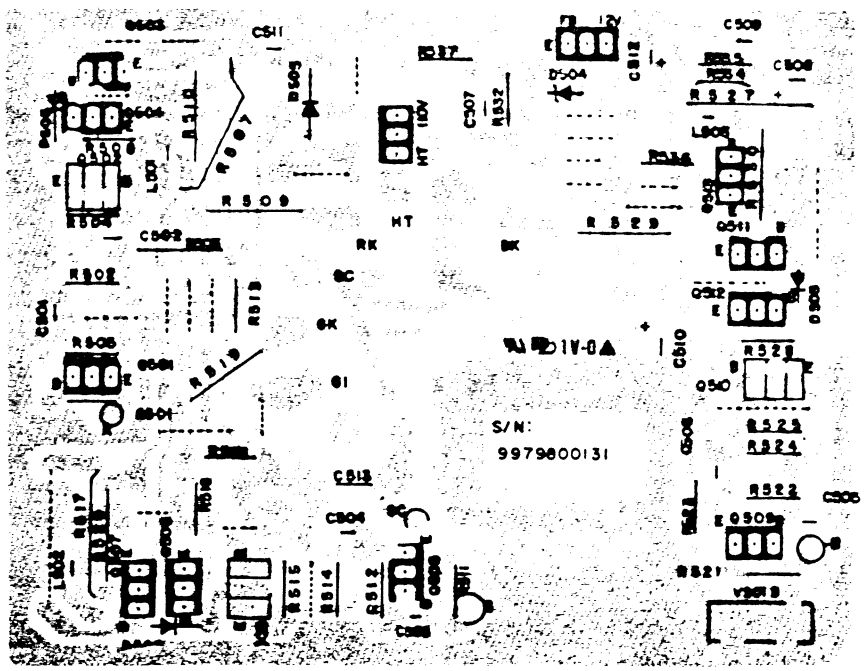


Fig. 19-b Bottom View

4. SOUND P.C. BOARD

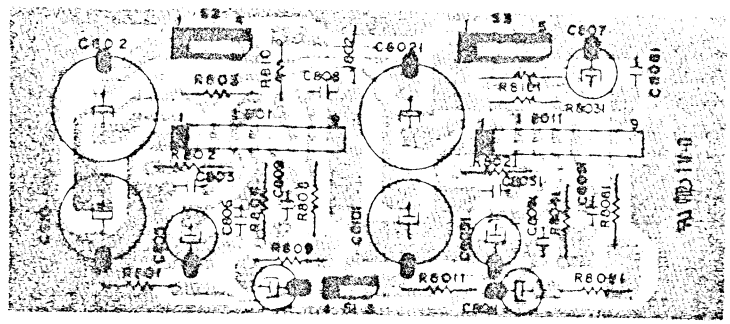


Fig. 20 Top View

5. EARPHONE P.C. BOARD

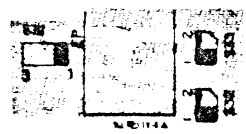


Fig. 21 Top View

6. LED P.C. BOARD

Fig. 22 Top View

7. MAIN P.C. BOARD

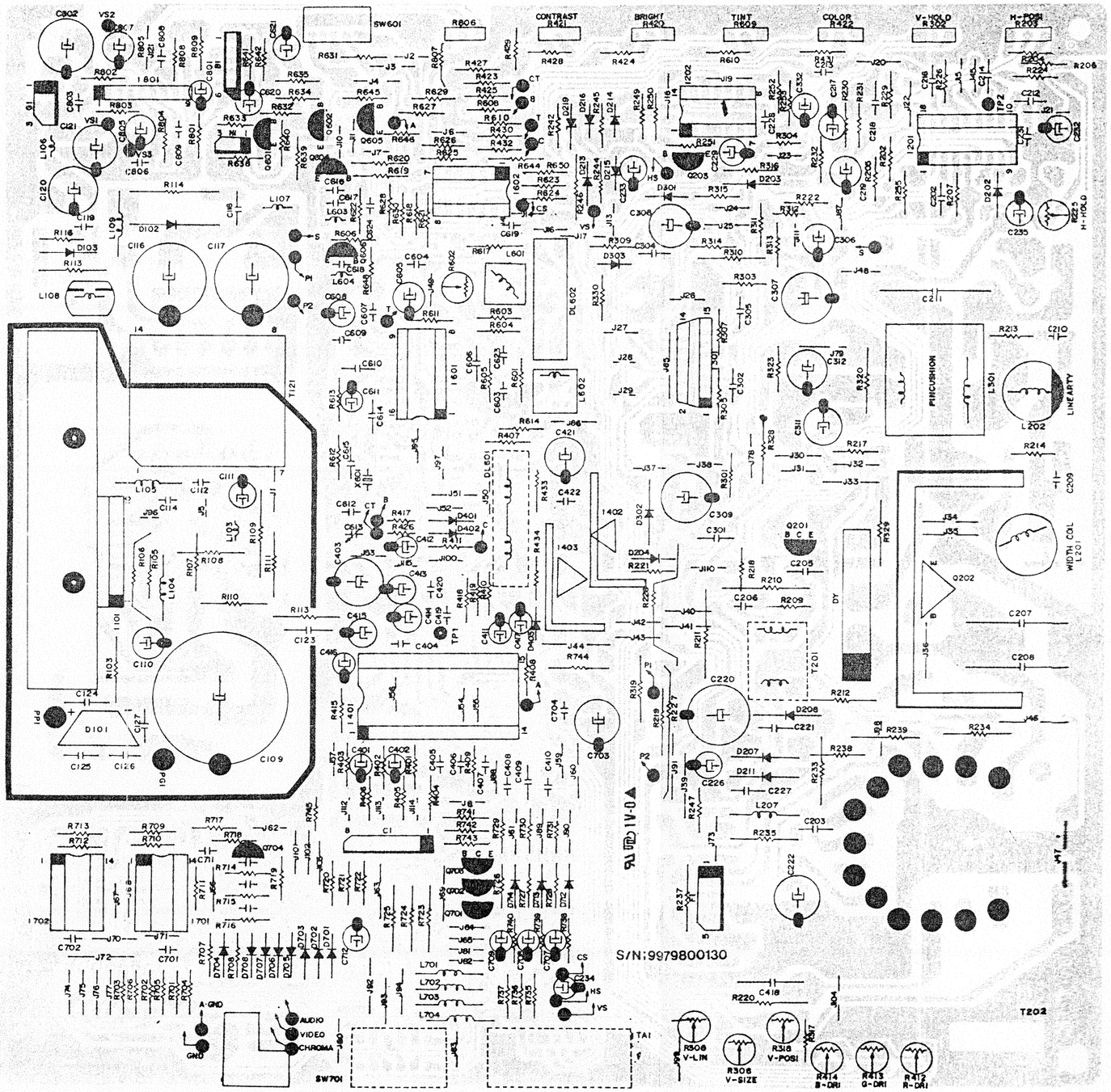


Fig. 23-a Top View

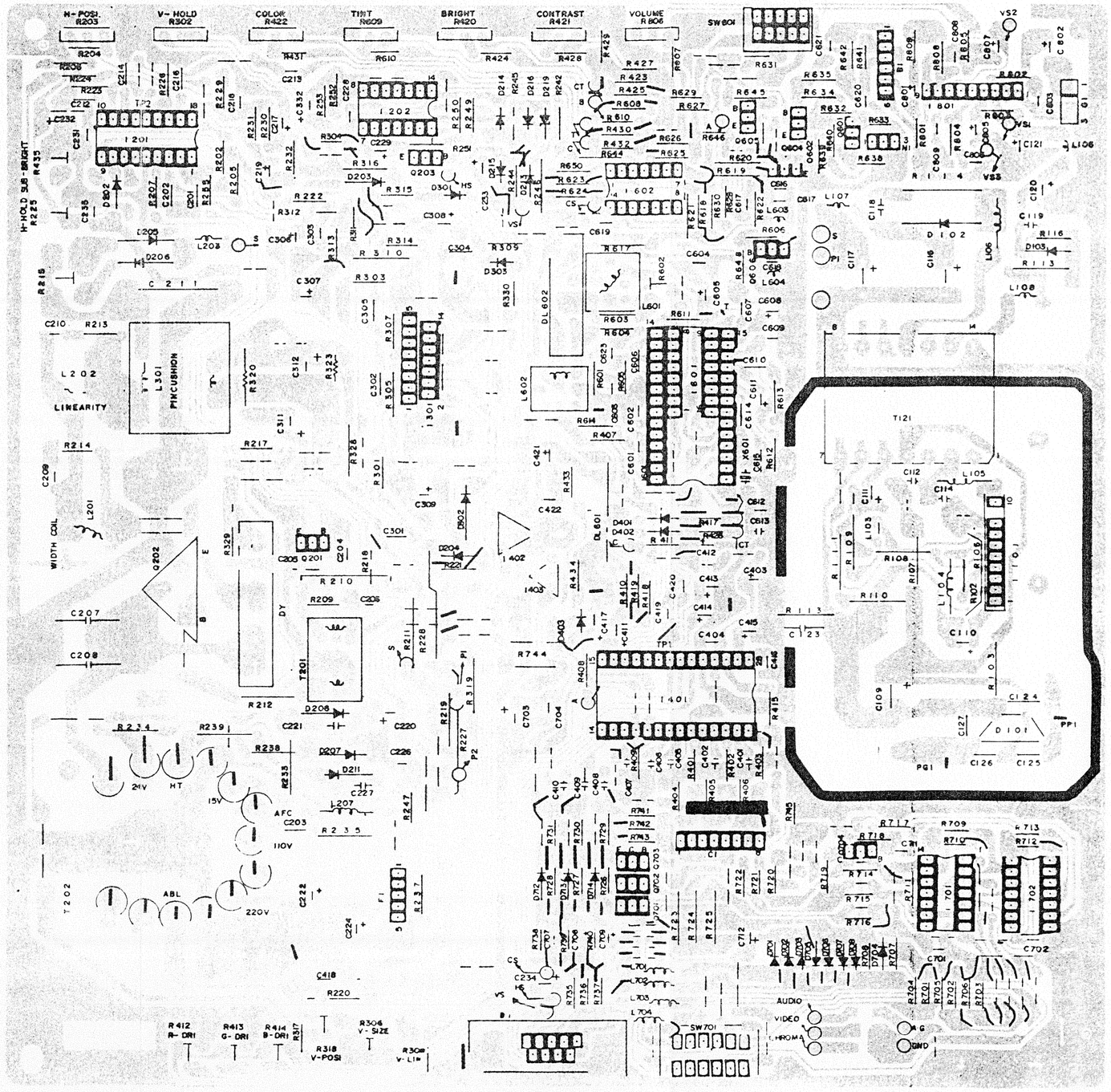
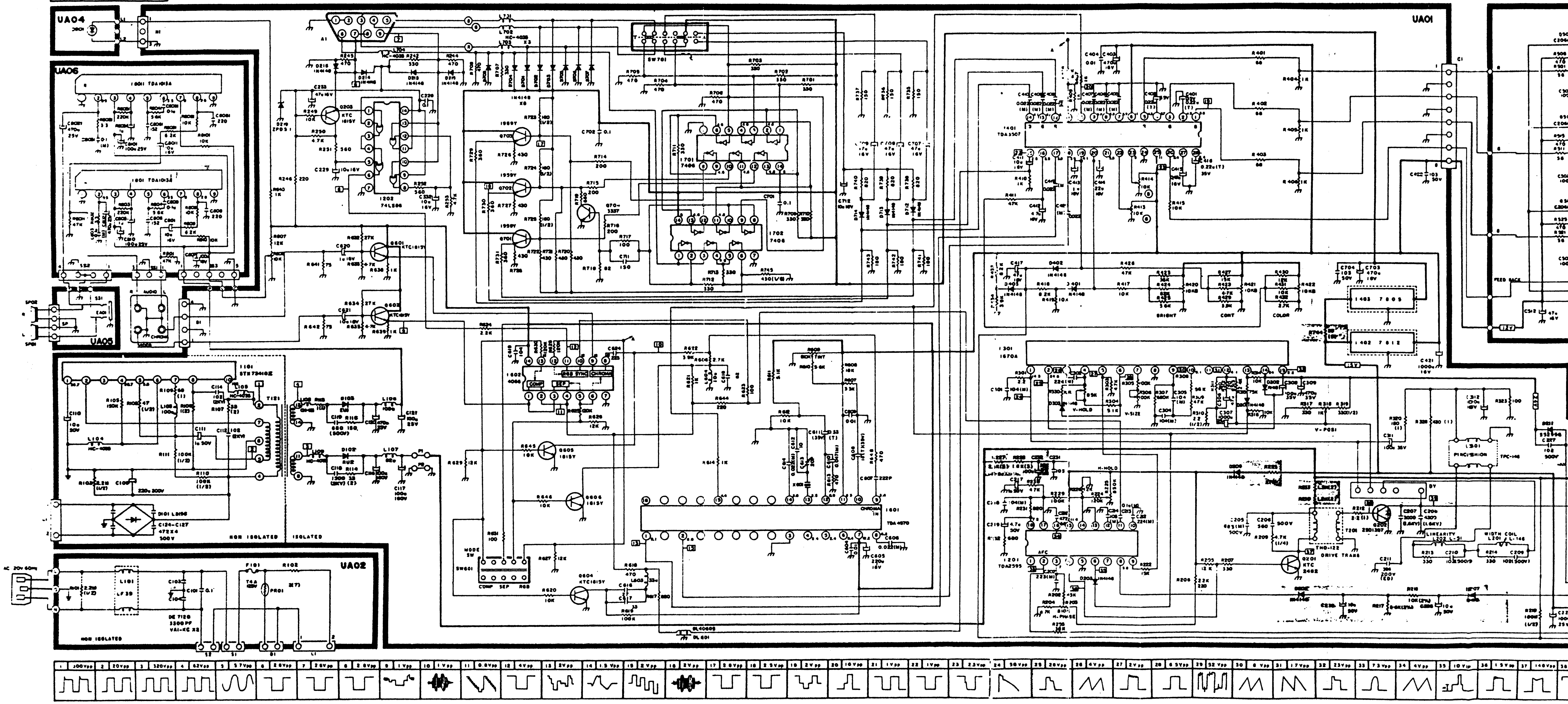


Fig. 23-b Bottom View

SCHEMATIC DIAGRAM (MODEL: CMC-146NR) CHASS NO: A-16 NTSC

SIZE	120PX550X1450
S/N	9978800122

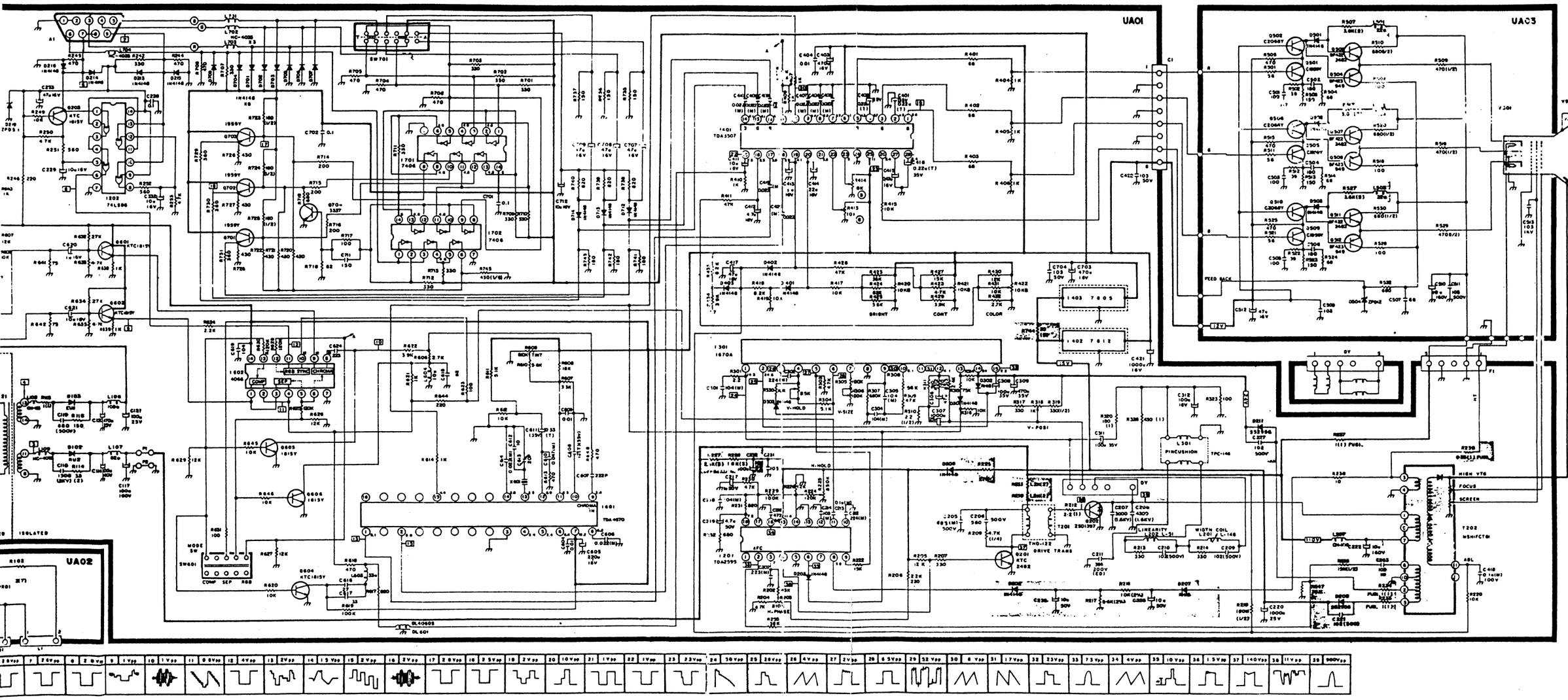


NOTE
1. RESISTANCE IS SHOWN IN OHM, K=1,000, M=1,000,000.
2. UNLESS OTHERWISE NOTED IN SCHEMATIC ALL CAPACITOR VALUES LESS THAN 1 ARE EXPRESSED IN mfd AND THE VALUES MORE THAN 1 IN pF.
3. UNLESS OTHERWISE NOTED IN SCHEMATIC ALL INDUCTOR VALUES MORE THAN 1 ARE EXPRESSED IN uH AND THE VALUES LESS THAN 1 IN H.
4. VOLTAGES READ WITH "VTVM" FROM POINT INDICATED TO CHASSIS GROUND. USING A COLOR BAR SIGNAL WITH ALL CONTROLS AT NORMAL. LINE VOLTAGE 120 VOLTS AC.
5. VOLTAGE READINGS SHOWN ARE NOMINAL VALUES AND MAY VARY ±20% EXCEPT H.V.
6. THIS CIRCUIT DIAGRAM IS A STANDARD ONE, CIRCUITS PRINTED MAY BE SUBJECT TO CHANGE FOR PRODUCT IMPROVEMENT WITHOUT PRIOR NOTICE.

"WARNING"
BEFORE SERVICING THIS CHASSIS, READ THE "X-RAY RADIATION PRECAUTION", "SAFETY PRECAUTION" AND "PRODUCT SAFETY NOTICE" IN THE SERVICE MANUAL.

CAUTION- TO THE SERVICE TECHNICIANS;
BEFORE RETURNING THE RECEIVER TO THE CUSTOMER, TO MAKE APPROPRIATE LEAKAGE CURRENT OR RESISTANCE MEASUREMENTS TO DETERMINE THAT EXPOSED PARTS ARE PROPERLY INSULATED FROM THE SUPPLY CIRCUIT.

iRAM (MODEL: CMC-146NR) CHASS NO: A-16 NTSC



NOTE

1- RESISTANCE IS SHOWN IN OHM, K=1,000, M=1,000,000.

2- UNLESS OTHERWISE NOTED IN SCHEMATIC ALL CAPACITOR VALUES LESS THAN 1 ARE EXPRESSED IN mfd AND THE VALUES MORE THAN 1 IN pF.

3- UNLESS OTHERWISE NOTED IN SCHEMATIC ALL INDUCTOR VALUES MORE THAN 1 ARE EXPRESSED IN mH AND THE VALUES LESS THAN 1 IN H.

4 VOLTAGES READ WITH "VTVM" FROM POINT INDICATED TO CHASSIS GROUND. USING A COLOR BAR SIGNAL WITH ALL CONTROLS AT NORMAL. LINE VOLTAGE 120 VOLTS AC.

5- VOLTAGE READINGS SHOWN ARE NOMINAL VALUES AND MAY VARY ±20% EXCEPT H.V.

6- THIS CIRCUIT DIAGRAM IS A STANDARD ONE, CIRCUITS PRINTED MAY BE SUBJECT TO CHANGE FOR PRODUCT IMPROVEMENTS WITHOUT PRIOR NOTICE.

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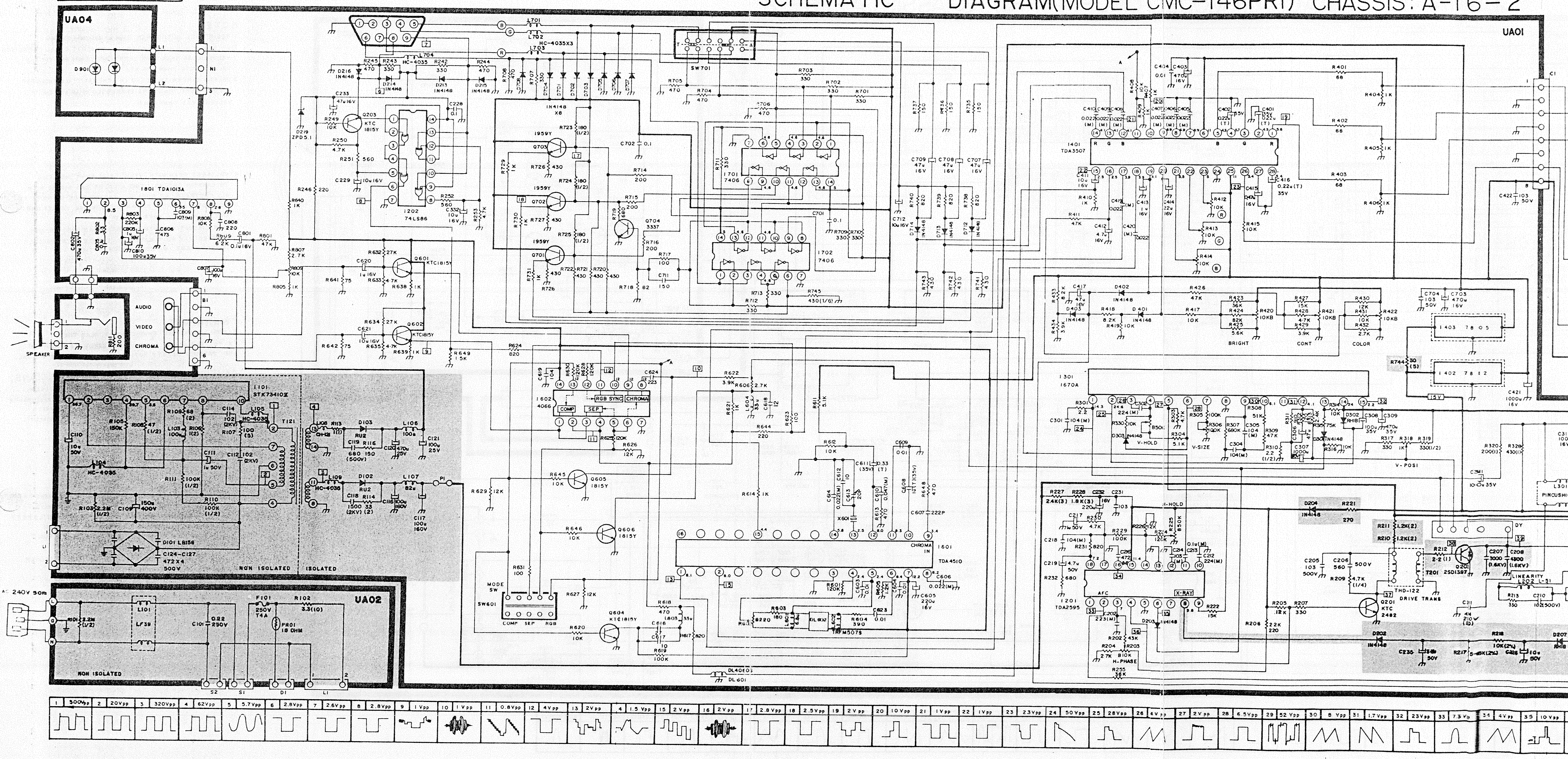
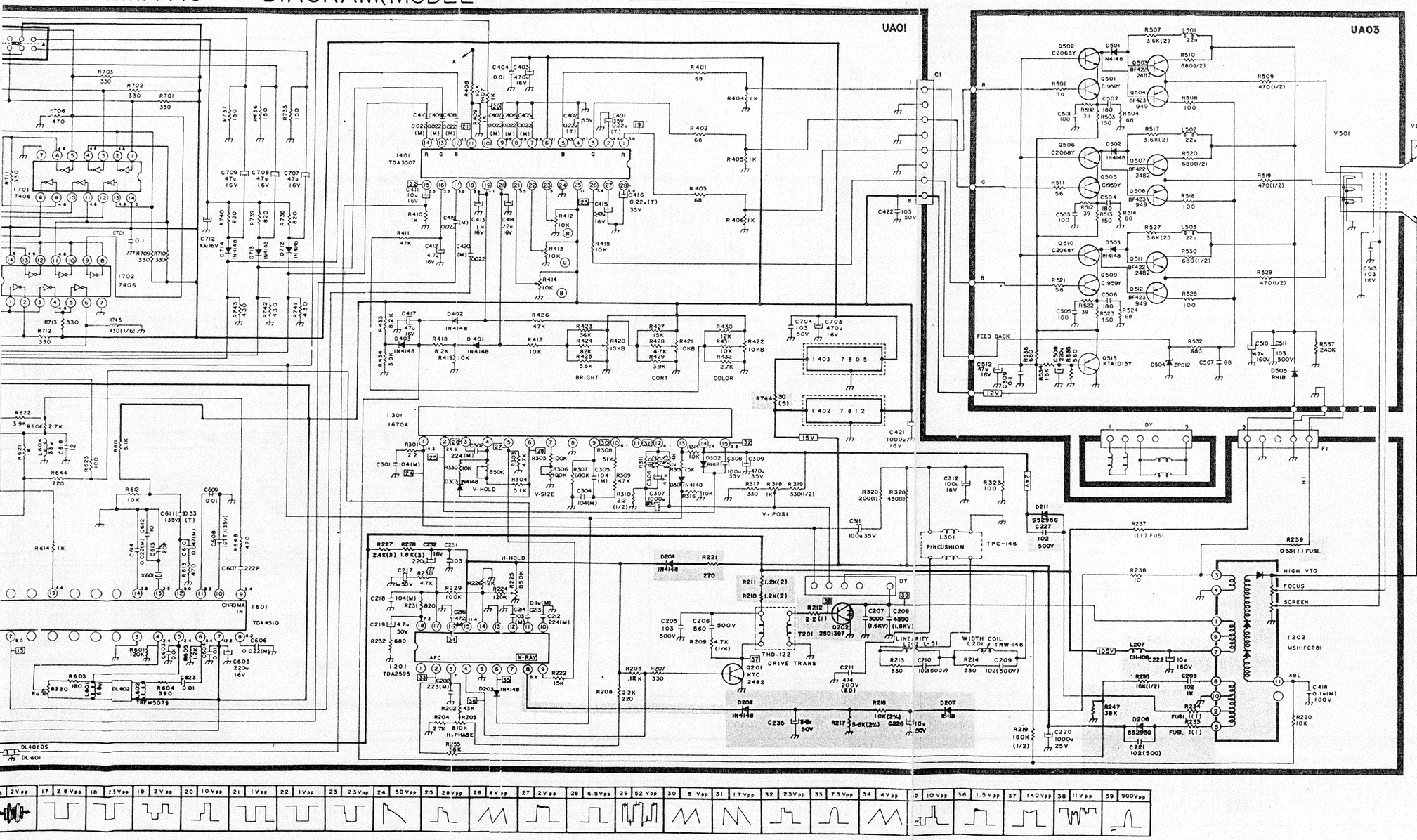
SIZE	120PX550X1450
S/N	9978800122 1

SCHEMATIC DIAGRAM(MODEL CMC-146PRI) CHASSIS: A-16-2



SCHEMATIC DIAGRAM(MODEL



NOTE

1. RESISTANCE IS SHOWN IN OHM, K=1,000, M=1,000,000.
2. UNLESS OTHERWISE NOTED IN SCHEMATIC ALL CAPACITOR VALUES LESS THAN 1 ARE EXPRESSED IN mfd AND THE VALUES MORE THAN 1 IN pF.
3. UNLESS OTHERWISE NOTED IN SCHEMATIC ALL INDUCTOR VALUES MORE THAN 1 ARE EXPRESSED IN uH AND THE VALUES LESS THAN 1 IN H.
4. VOLTAGES READ WITH "VTVM" FROM POINT INDICATED TO CHASSIS GROUND. USING A COLOR BAR SIGNAL WITH ALL CONTROLS AT NORMAL. LINE VOLTAGE 120 VOLTS AC.
5. VOLTAGE READINGS SHOWN ARE NOMINAL VALUES AND MAY VARY ±20% EXCEPT H.V.
6. THIS CIRCUIT DIAGRAM IS A STANDARD ONE, CIRCUITS PRINTED MAY BE SUBJECT TO CHANGE FOR PRODUCT IMPROVEMENT WITHOUT PRIOR NOTICE.

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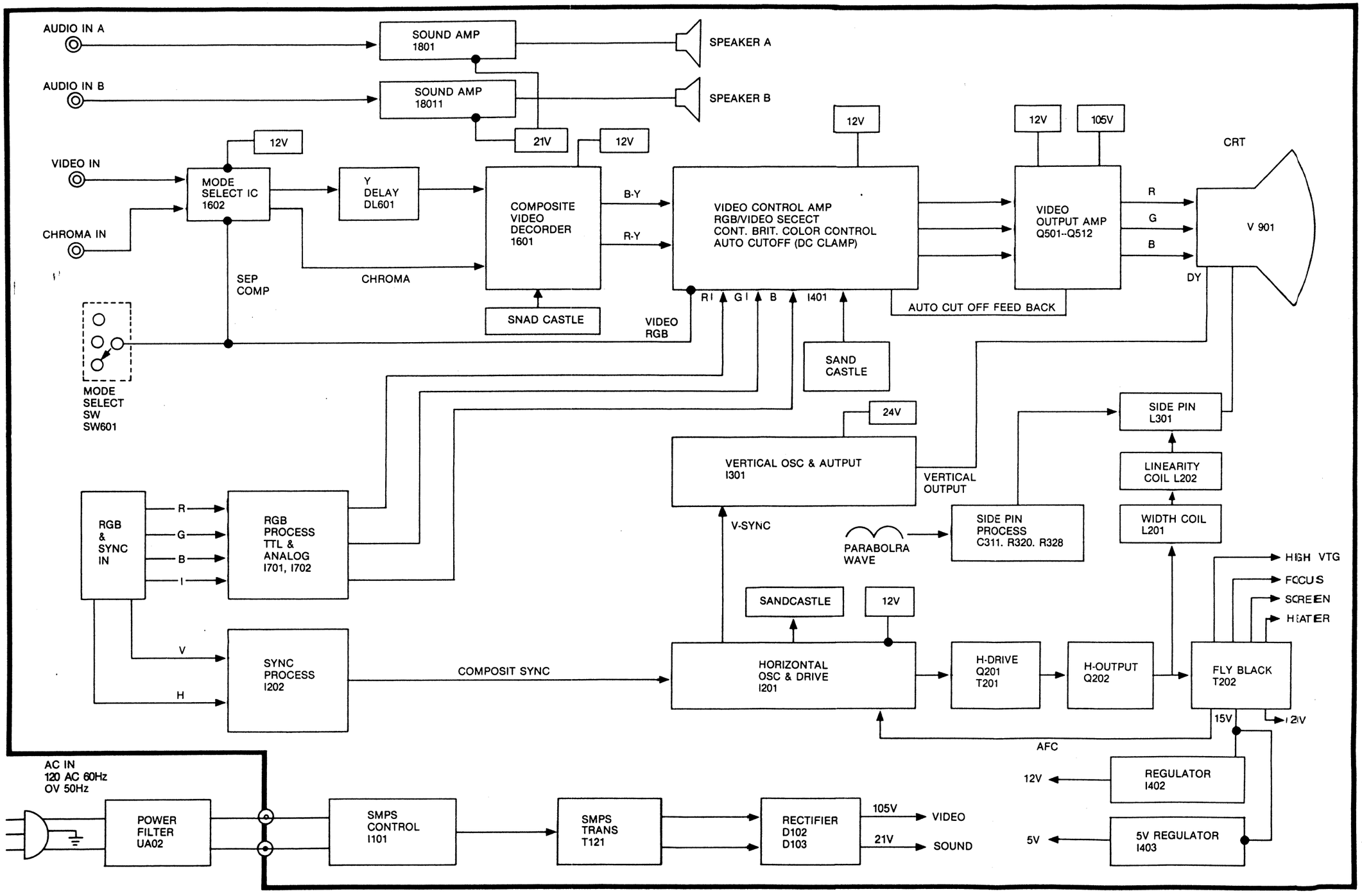
CAUTION ; THE SHADED AREAS IN THE SCHEMATIC DIRGRAM DESIGNATE COMPONENTS WHICH HAVE SPECIAL CHARACTERISTICS IMPORTANT FOR SAFETY AND SHOULD BE REPLACED ONLY WITH TYPES IDENTICAL TO THOSE IN THE ORIGINAL CIRCUIT OR SPECIFIED IN THE PARTS LIST. DO NOT DEGRADE THE SAFETY OF THE RECEIVER THROUGH IMPROPER SERVICING.

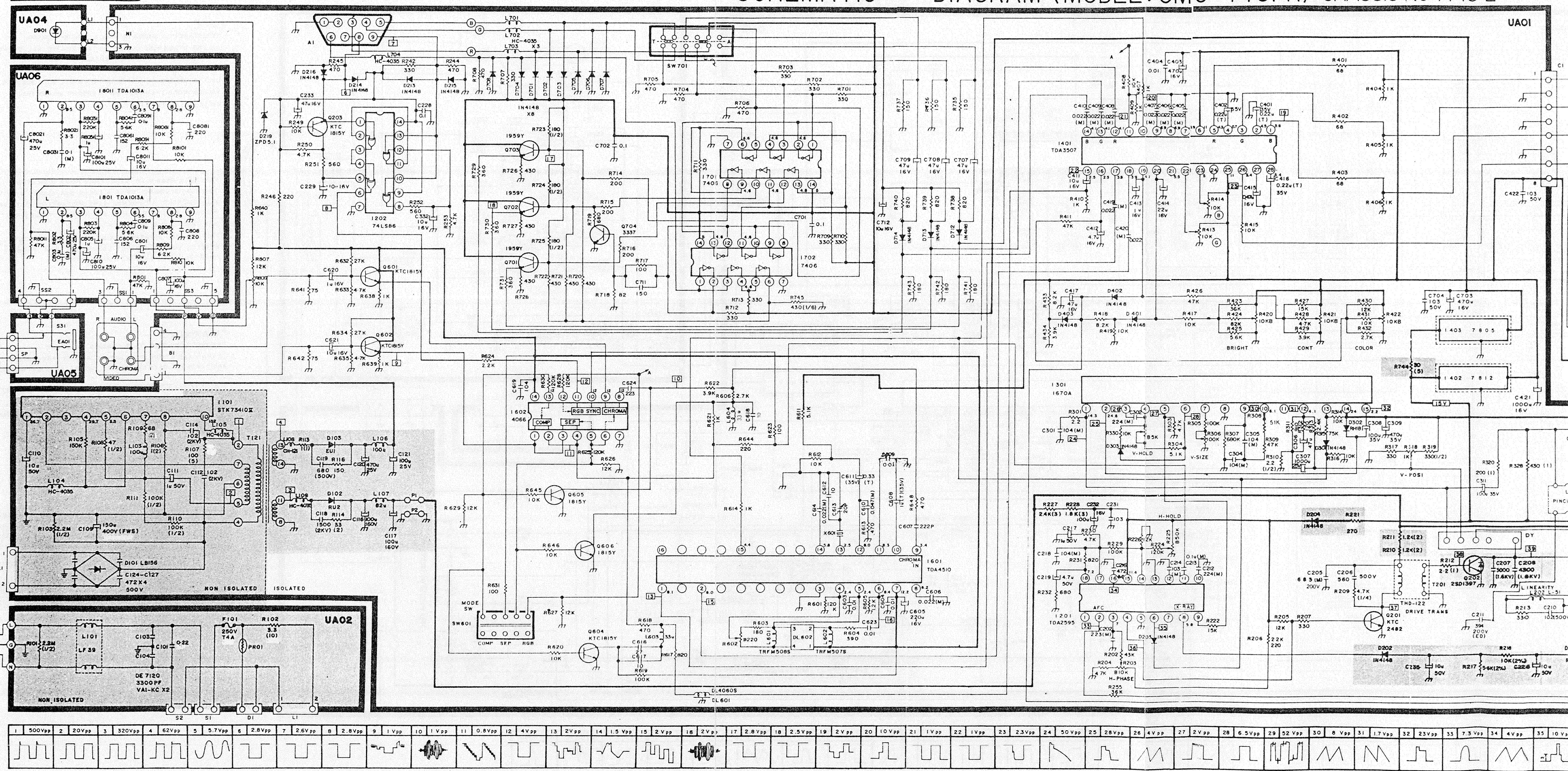
1084 D PAL
MONO

BLOCK DIAGRAM OF C-16 CHASSIS

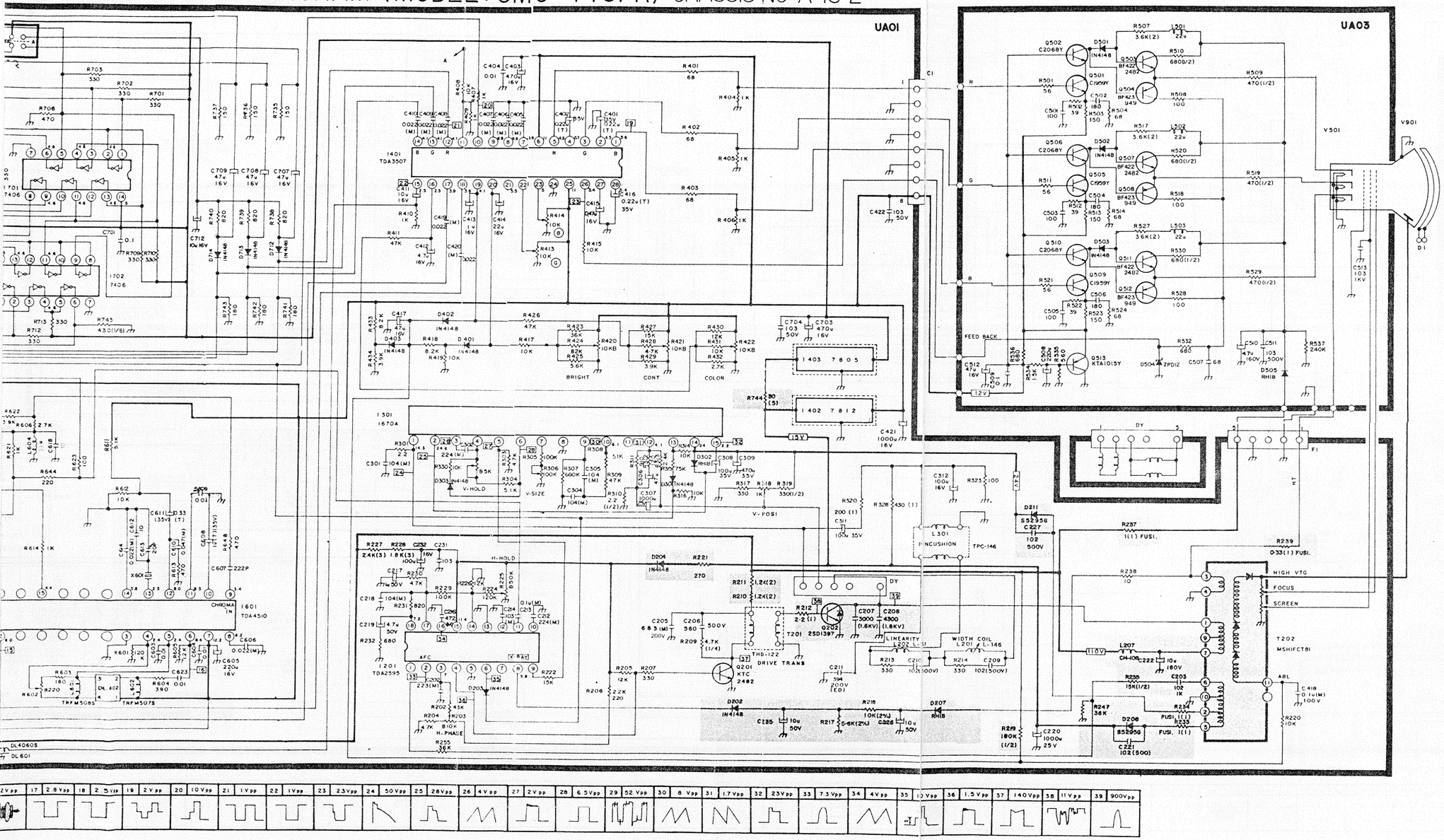


SIZE	120PX550X1450
S/N	9978800122

SCHEMATIC DIAGRAM (MODEL: CMC-146PR) CHASSIS NO A-16-2



SCHEMATIC DIAGRAM (MODEL : CMC-146PR) CHASSIS NO A-16-2



NOTE

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2. UNLESS OTHERWISE NOTED IN SCHEMATIC ALL CAPACITOR VALUES LESS THAN 1 ARE EXPRESSED IN mfd AND THE VALUES MORE THAN 1 IN pF.
3. UNLESS OTHERWISE NOTED IN SCHEMATIC ALL INDUCTOR VALUES MORE THAN 1 ARE EXPRESSED IN uH AND THE VALUES LESS THAN 1 IN H.
4. VOLTAGES READ WITH "VTVM" FROM POINT INDICATED TO CHASSIS GROUND. USING A COLOR BAR SIGNAL WITH ALL CONTROLS AT NORMAL. LINE VOLTAGE 120 VOLTS AC.
5. VOLTAGE READINGS SHOWN ARE NOMINAL VALUES AND MAY VARY ±20% EXCEPT H.V.
6. THIS CIRCUIT DIAGRAM IS A STANDARD ONE, CIRCUITS PRINTED MAY BE SUBJECT TO CHANGE FOR PRODUCT IMPROVEMENT WITHOUT PRIOR NOTICE.

"WARNING"

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CAUTION- TO THE SERVICE TECHNICIANS;

BEFORE RETURNING THE RECEIVER TO THE CUSTOMER, TO MAKE APPROPRIATE LEAKAGE CURRENT OR RESISTANCE MEASUREMENTS TO DETERMINE THAT EXPOSED PARTS ARE PROPERLY INSULATED FROM THE SUPPLY CIRCUIT.

CAUTION ; THE SHADED AREAS IN THE SCHEMATIC DIRGRAM DESIGNATE COMPONENTS WHICH HAVE SPECIAL CHARACTERISTICS IMPORTANT FOR SAFETY. AND SHOULD BE REPLACED ONLY WITH TYPES IDENTICAL TO THOSE IN THE ORIGINAL CIRCUIT OR SPECIFIED IN THE PARTS LIST. DO NOT DEGRADE THE SAFETY OF THE RECEIVER THROUGH IMPROPER SERVICING.

1084 D PAL
STEREO

1084S-Daewoo Spare Parts List

Items preceded with a C are Commodore Stocked.
All other items are local purchase.

CBM P/No		Part Description	Vendor P/No	Location
614996-01		1084S-D SERVICE MANUAL (NTSC)	1084SD	
602210-01		1084S-D MONITOR (NTSC)	1084SD	
602215-01		1084S-D MONIOTR (PAL)		
602210-01	C	CRT,M34JBK10X12	9979600043	V901
602210-02	C	CRT,M34JRW20X04	9979600052	V901
602210-03	C	IC,STK73410II	1STK734102	I101
602210-04	C	IC,TDA2595	1TDA2595	I201
602210-05	C	IC, HD74LS86	174LS86	I201
602210-06	C	IC,TDA1670A	1TDA1670A	I301
602210-07	C	IC, TDA3507	1TDA3507	I401
602210-08	C	REGULATOR, KTA7812	1KTA7812	I402
602210-09	C	REGULATOR, KTA7805	1KTA7805	I403
602210-10	C	IC, TDA4510	1TDA4510	I601
602210-11		IC, UPD4066BC	1UPD4066BC	I602
602210-12		IC TTL, SN7406	1SN7406	I701
				I702
602210-13		IC, TDA1013A	1TDA1013A	I801
				I8011
602210-14	C	TR,KTC2482	TKTC2482	Q201
602210-15	C	TR, 2SD1397 (WITH MICA)	T2SD1397	Q202
602210-16		TR,KTC1815-Y (AUTO)	TZTC1815Y	Q203
				Q601-602
				Q604-606
602210-17	C	TR, KTC1959-Y (AUTO)	TZTC1959Y	Q701
				Q702
				Q703
602210-18	C	TR, 2SC3337	T2SC3337	Q704
602210-17		R, KTC1959-Y (AUTO)	TZTC1959Y	Q501
				Q505
				Q509
602210-19		TR, KTC2068	TKTC2068	Q502
				Q506
602210-20		TR, BF422 (AUTO)	TBF422	Q503
				Q507
				Q510
				Q511
602210-21		TR, KTC2229	TKTC2229	
602210-22		TR,KTC2482	TKTC2482	
602210-23		TR, FB245 (AUTO)	TBF423	Q504
				Q508
				Q512
602210-24		TR, KTA949-Y (AUTO)	TKTC949Y	
602210-25		TR, KTC1015-Y	TKTC1015Y	Q513
602210-26	C	DIODE BRIDGE, LB156	DLB156	D101
602210-27	C	DIODE, RU-2	DRU-2	D102
602210-28		DIODE, 1N4936	D1N4936	D103
602210-29		DIODE, R2	DRU2	D103
602210-30		DIODE, 1N4148 (AUTO)	DZN4148	D202-D204
602210-31	C	DIODE, RH-1B	DRH1B	D207
602210-32		DIODE, BA159	DBA159	

1084S-Daewoo Spare Parts List

Items preceded with a C are Commodore Stocked.
All other items are local purchase.

CBM P/No		Part Description	Vendor P/No	Location
602210-33		DIODE, S5295G	DS5295G	D208,D211
602210-30		DIODE, 1N4148 (AUTO)	DZN4148	D213-D216
602210-34		DIODE ZENER, ZPD5.1	DZPD5R1B	D219
602210-30		DIODE 1N4148	D1N4148	D301
602210-35		DIODE, RH-1B	DRH1B	D302
602210-36		DIODE, BA159	DBA159	
602210-30		DIODE 1N4148	D1N4148	D303
				D401-403
				D701-708
				D712
				D714
602210-37	C	SMPS, TSW4210	5RM0000009	T121
602210-38	C	TRANS H DRIVE, THD-122	5RD0000004	T201
602210-39	C	FBT, MSH1FCT81	5RH0000023	T202
602210-40		FILTER LINE,LF-39(39MH)	5PTLF122	L101
602210-41		COIL CHOKE, CH101	5MC0000004	L103
602210-42		COIL CHOKE, HC-4035	58C0000026	L104
				L105
602210-41		COIL CHOKE, CH101	5MC0000004	L106
602210-43		COIL CHOKE, L-82	5MC0000003	L107
602210-44		COIL CHOKE, CH-121	5MC0000019	L108
602210-42		COIL CHOKE, HC-4035	58C0000026	L109
602210-45	C	COIL WIDTH, TRW-141T	5MW0000025	L201
602210-46	C	COIL LINEARITY,TRL-414M	58H0000005	L202
602210-47		COIL CHOKE, CH-108	5MC0000023	L207
602210-48	C	TRANS SPC, TPC-146	5RC0000005	L301
602210-49		COIL PEAKING,PL22J(22UH)	58P220J039	L501-L503
602212-45		COIL DELAY LINE,DL04060S	58Q0000019	DL601
602210-50		COIL PEAKING,PL33J(33UH)	58P330J045	L603
				L604
602210-51		COIL CHOKE,HC-4035	58C0000026	L701-L704
602210-52		VR ROTARY, 10KB	5V1103015B	R203
602210-53		R SEMI FIXED,95A 50K OHM	RV6317503A	R225
602210-52	C	VR ROTARY, 10KB	5V1103015A	R302
602210-54	C	R SEMIFIXED,A100KOHM(117A)	RV6117104A	R306
602210-55		R SEMIFIXED,117AB1KOHM	RV6117102A	R318
602210-56		R SEMIFIXED,117AB10KOHM	RV6117103A	R412-R414
602210-57	C	VR ROTARY,B10K OHM (C.C)	RV1103014B	R420-R422
				R609
602210-52		VR ROTARY, 10KB	5V1103015B	R806
602210-58		FUSE, 4A 125 V	5F1GB4021L	F101
602210-59		R CARBON FILM,1/2 2.2M OHM J	RD-2Z225J	R101
602210-60		R CEMENT 7W 2 OHM BENCH	RX07B209JE	R102
602210-59		R CARBON FILM,1/2 2.2M OHM J	RD-2Z225J	R103
602210-61		R CARBON FILM,1/4 150K OHM J	RD-4Z154J	R105
602210-62	C	R M-OXIDE FILM,2W1OHM J	RS02Y109J	R106
602210-63	C	R M-OXIDE FILM,2W33OHM J	RS02Y330J	R107
602210-64		R CARBON FILM,1/2 47OHMJ	RD-2Z470J	R108
602210-65	C	R M-OXIDE,2W 68 OHM J	RS02Y680J	R109
602210-66		R CARBON,1/2 100K OHM J	RD-2Z104J	R110

1084S-Daewoo Spare Parts List

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CBM P/No		Part Description	Vendor P/No	Location
				R111
602210-67		R FUSIBLE, 1W 1 OHM J	RF01Y109J	R113
602210-63		R M- OXIDE FILM,2W33OHMJ	RS02Y330J	R114
602210-68		R CARBON,1/4 150 OHM J	RD-4Z151J	R116
602210-69		R CARBON,1/4 43K OHM J	RD-4Z433J	R202
602210-70		R CARBON,1/4 4.7K OHM J	RD-4Z472J	R204
602210-71		R CARBON,1/4 12K OHM J	RD-4Z123J	R205
602210-72		R CARBON,1/4 2.2K OHM J	RD-4Z222J	R206
602210-73		R CARBON.1/4 330 OHM J	RD-4Z331J	R207
602210-70		R CARBON,1/4 4.7K OHM J	RD-4Z472J	R209
602210-74	C	R M-OXIDE,2W 1.2 OHM J	RS02Y122J	R210
				R211
602210-75		R M-OXIDE,2W 1.2K OHM J	RS01Y229J	R212
602210-73		R CARBON,1/4 330 OHM J	RD-4Z331J	R213
				R214
602210-76		R CARBON,1/4 5.6K OHM G	RD-4Z562G	R217
602210-77	C	R CARBON,1/4 10K OHM J	RD-4Z103G	R218
602210-78	C	R CARBON,1/ 180K OHM J	RD-2Z184J	R219
602210-79	C	R CARBON,1/4 10K OHM J	RD-4Z103J	R220
602210-80		R CARBON,1/4 270 OHM J	RD-4Z271J	R221
602210-81		R CARBON,1/4 15K OHM J	RD-4Z153J	R222
602210-82		R CARBON,1/4 120K OHM J	RD-4Z124J	R224
602210-71		R CARBON,1/4 12K OHM J	RD-4Z123J	R226
602210-83	C	R M-OXIDE,3W 2.4K OHM J	RS03Y242J	R227
602210-84	C	R M-OXIDE,3W 1.8K OHM J	RS03Y182J	R228
602210-85		R CARBON,1/4 100K OHM J	RD-4Z104J	R229
602210-70		R CARBON,1/4 4.7K OHM J	RD-4Z472J	R230
602210-86		R CARBON,1/4 820 OHM J	RD-4Z821J	R231
602210-67		R FUSIBLE,1W 1 OHM J	RF01Y109J	R233
				R234
602210-87		R CARBON,1/2 15K OHM J	RD-2Z153J	R235
				R237
602210-88	C	R CARBON,1/4 10 OHM J	RD-4Z100J	R238
602210-89		R FUSIBLE,1W 0.33 OHM J	RS01Y338J	R239
602210-72		R CARBON,1/4 2.2K OHM J	RD-4X222J	R242
602210-90		R CARBON,1/4 470 OHM J	RD-4Z471J	R244
				R245
602210-91		R CARBON,1/4 220 OHM J	RD-4Z221J	R246
602210-92		R CARCON,1/4 36K OHM J	RD-4Z363J	R247
602210-79		R CARBON,1/4 10K OHM J	RD-4Z103J	R249
602210-70		R CARBON,1/4 4.7K OHM J	RD-4Z472J	R250
602210-93		R CARBON,1/4 560 OHM J	RD-4Z561J	R251
				R252
602210-70		R CARBON,1/4 4.7K OHM J	RD-4Z472J	R253
602210-92		R CARBON,1/4 36K OHM J	RD-4Z363J	R255
602210-94		R CARBON,1/4 2.2 OHM J	RD-4Z229J	R301
602210-70		R CARBON,1/4 4.7K OHM J	RD-4Z472J	R303
602210-95		R CARBON,1/4 5.1K OHM J	RD-4Z512J	R304
602210-85		R CARBON,1/4 100K OHM J	RD-4Z104J	R305
602210-96		R CARBON,1/4 680K OHM J	RD-4Z684J	R307

1084S-Daewoo Spare Parts List

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CBM P/No	Part Description	Vendor P/No	Location
602210-97	R CARBON,1/4 56K OHM J	RD-4Z563J	R308
602210-69	R CARBON,1/4 43K OHM J	RD-4Z433J	R309
602210-98	R CARBON,1/2 2.2 OHM J	RD-2Z229J	R310
602210-99	R CARBON,1/4 910 OHM J	RD-4Z911J	R311
602211-00	R CARBON,1/4 120 OHM J	RD-4Z121J	R312
602211-01	R CARBON,1/4 2.4 OHM J	RD-4Z242J	R313
602210-79	R CARBON,1/4 10K OHM J	RD-4Z103J	R314
602211-02	R CARBON,1/4 75K OHM J	RD-4Z753J	R315
602210-79	R CARBON,1/4 10K OHM J	RD-4Z103J	R316
602210-73	R CARBON,1/4 330 OHM J	RD-4Z331J	R317
602211-03	R CARBON,1/2 330 OHM J	RD-2Z331J	R319
602211-04	R CARBON,1W 150 OHM J	RS01Y151J	R320
602211-05	R CARBON,1/4 100 OHM J	RD-4Z101J	R323
602211-06	R M-OXIDE,1W 430 OHM J	RS01Y431J	R238
602210-79	R CARBON,1/4 10K OHM J	RD-4Z103J	R330
602211-07	R CARBON,1/4 68 OHM J	RD-4Z680J	R401-R403
602211-09	R CARBON,1/4 1K OHM J	RD-4Z102J	R404-R407
602210-79	R CARBON,1/4 10K OHM J	RD-4Z103J	R408
602211-09	R CARBON,1,4 1K OHM J	RD-4Z102J	R409
			R410
602211-11	R CARBON,1/4 47K OHM J	RD-4Z473J	R411
602210-79	R CARBON,1/4 10K OHM J	RD-4Z103J	R415
			R417
602211-12	R CARBON,1/4 8.2K OHM J	RD-4Z822J	R418
602210-79	R CARBON,1/4 10K OHM J	RD-4Z103J	R419
602211-13	R CARBON,1/4 39K OHM J	RD-4Z393J	R423
602211-14	R CARBON,1/4 82K OHM J	RD-4Z823J	R424
602211-15	R CARBON,1/4 5.6K OHM J	RD-4Z562J	R425
602211-11	R CARBON,1/6 4.7K OHM J	RD-4Z473J	R426
602211-16	R CARBON,1/4 3.9K OHM J	RD-4Z392J	R429
602210-71	R CARBON,1/4 12K OHM J	RD-4Z123J	R430
602210-79	R CARBON,1/4 10K OHM J	RD-4Z103J	R431
602211-17	R CARBON,1/4 2.7K OHM J	RD-4Z272J	R432
602211-12	R CARBON,1/4 8.2K OHM J	RD-4Z822J	R433
602211-16	R CARBON,1/4 3.9K OHM J	RD-4Z392J	R434
602211-18	R CARBON,1/4 56 OHM J	RD-4Z560J	R501
			R511
			R521
602211-19	R CARBON,1/4 39 OHM J	RD-4Z390J	R502
			R512
			R522
602211-07	R CARBON,1/4 68 OHM J	RD-4Z680J	R504
			R514
			R524
602210-90	R CARBON,1/4 470 OHM J	RD-4Z471J	R505
			R515
			R516
602211-17	R CARBON,1/4 2.7K OHM J	RD-4Z272J	R503
			R513
			R523

1084S-Daewoo Spare Parts List

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CBM P/No	Part Description	Vendor P/No	Location
602211-20	R M-OXIDE,2W 3.6K OHM J	RS02Y362J	R507
			R517
			R527
602211-05	R M-OXIDE,1/4 100 OHM J	RD-4Z101J	R508
			R518
			R528
602211-21	R CARBON,1/2 470 OHM J	RD-2Z471J	R509
			R519
			R529
602211-22	R CARBON,1/4 680 OHM J	RD-2Z681J	R510
			R520
			R530
			R532
602211-24	R CARBON,1/4 1.5K OHM J	RD-4Z152J	R534
602211-25	R CARBON,1/4 560 OHM J	RD-4Z561J	R535
602211-23	R CARBON,1/4 680 OHM J	RD-4Z681J	R536
602211-26	R CARBON,1/4 240K OHM J	RD-4Z244J	R537
602211-17	R CARBON,1/4 2.7K OHM J	RD-4Z272J	R606
			R607
			R608
602211-15	R CARBON,1/4 5.6K OHM J	RD-4Z562J	R610
602210-95	R CARBON,1/4 5.1K OHM J	RD-4Z512J	R611
602210-79	R CARBON,1/4 10K OHM J	RD-4Z103J	R612
602210-90	R CARBON,1/4 470 OHM J	RD-4Z471J	R613
602211-09	R CARBON,1/4 1K OHM J	RD-4Z102J	R614
602210-86	R CARBON,1/4 820 OHM J	RD-4Z821J	R617
602210-90	R CARBON,1/4 470 OHM J	RD-4Z471J	R618
602210-85	R CARBON,1/4 100K OHM J	RD-4Z104J	R619
602210-79	R CARBON,1/4 10K OHM J	RD-4Z103J	R620
602211-09	R CARBON,1/4 1K OHM J	RD-4Z102J	R621
602211-16	R CARBON,1/4 3.9K OHM J	RD-4Z392J	R622
602211-09	R CARBON,1/4 1K OHM J	RD-4Z102J	R623
602210-72	R CARBON,1/4 2.2K OHM J	RD-4Z222J	R624
602210-82	R CARBON,1/4 120K OHM J	RD-4Z124J	R625
602210-71	R CARBON,1/4 12K OHM J	RD-4Z123J	R626
			R627
602210-82	R CARBON,1/4 120K OHM J	RD-4Z124J	R628
602210-71	R CARBON,1/4 12K OHM J	RD-4Z123J	R629
602210-82	R CARBON,1/4 120K OHM J	RD-4Z124J	R630
602211-05	R CARBON,1/4 100K OHM J	RD-4Z101J	R631
602211-27	R CARBON,1/4 27K OHM J	RD-4Z273J	R632
602210-70	R CARBON,1/4 4.7K OHM J	RD-4Z472J	R633
602211-27	R CARBON,1/4 27K OHM J	RD-4Z273J	R634
602210-70	R CARBON,1/4 4.7K OHM J	RD-4Z472J	R635
602211-09	R CARBON,1/4 1K OHM J	RD-4Z102J	R638
			R639
			R640
602211-28	R CARBON,1/4 750 OHM J	RD-4Z750J	R641
			R642
602210-91	R CARBON,1/4 220 OHM J	RD-4Z221J	R644

1084S-Daewoo Spare Parts List

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CBM P/No	Part Description	Vendor P/No	Location
602210-79	R CARBON,1/4 10K OHM J	RD-4Z103J	R645
602210-79	R CARBON,1/6 10K OHM J	RD-4Z103J	R646
602210-90	R CARBON,1/4 470 OHM J	RD-4Z471J	R648
602210-72	R CARBON,1/4 2.2K OHM J	RD-4Z222J	R649
602210-73	R CARBON,1/4 330 OHM J	RD-4Z331J	R701
			R702
			R703
602210-90	R CARBON,1/4 470 OHM J	RD-4Z471J	R704
			R705
			R706
602210-73	R CARBON,1/4 330 OHM J	RD-4Z331J	R707
			R709-R713
602210-90	R CARBON,1/4 470 OHM J	RD-4Z471J	R708
602211-29	R CARBON,1/4 200 OHM J	RD-4Z201J	R714
			R715
			R716
602211-05	R CARBON,1/4 100 OHM J	RD-4Z101J	R717
602210-86	R CARBON,1/4 820 OHM J	RD-4Z821J	R718
602211-23	R CARBON,1/4 680 OHM J	RD-4Z681J	R719
602211-30	R CARBON,1/4 430 OHM J	RD-4Z431J	R720
			R721
			R722
602211-31	R CARBON,1/4 180 OHM J	RD-4Z181J	R723
			R724
			R725
602211-30	R CARBON,1/4 430 OHM J	RD-4Z431J	R726
			R727
			R728
602211-09	R CARBON,1/4 1K OHM J	RD-4Z102J	R729
			R730
			R731
602211-31	R CARBON,1/4 150 OHM J	RD-4Z151J	R735
			R736
			R737
602210-86	R CARBON,1/4 820 OHM J	RD-4Z821J	R738
			R739
			R740
602211-30	R CARBON,1/4 430 OHM J	RD-4Z431J	R741-R743
			R745
602211-11	R CARBON,1/4 47K OHM J	RD-4Z473J	R801
			R8011
602211-32	R CARBON,1/4 3.3 OHM J	RD-4Z339J	R802
			R8021
602211-33	R CARBON,1/4 47 OHM J	RD-4Z224J	R803
			R8031
602211-34	R CARBON,1/4 5.6K OHM J	RD-4Z562J	R804
			R8041
602210-71	R CARBON,1/4 12K OHM J	RD-4Z123J	R807
602210-79	R CARBON,1/4 10K OHM J	RD-4Z103J	R808
			R8081

1084S-Daewoo Spare Parts List

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CBM P/No		Part Description	Vendor P/No	Location
602211-35		R CARBON,1/4 6.2K OHM J	RD-4Z622J	R809 R8091
602210-79		R CARBON,1/4 10K OHM J	RD-4Z103J	R810 R8101
602212-43	C	C LINE ACROSS AC125V 0.1M	CLYL2B104M	C101
602212-44	C	C LINE ACROSS VA1-KC 3300M	CCYB3G332M	C103 C104
602211-36		C ELECTRO 200V 220UF FUF	CEXM2D221C	C109
602211-37		C ELECTRO 50V 10UF RS	CEXE1H110A	C110
602211-38		C ELECTRO 50V 1UF RS	CEXE1H109A	C111
602211-39		C CERA 2KV 1000PF K	CCXB3D102K	C112 C114
602211-40		C ELECTRO 160V 100UF RS	CEXE2C101A	C116 C117
602211-41		C CERA 2KV 1500PF K	CCXB3D152K	C118
602211-42		C CERA 500V 680PF K	CCXB2H681K	C119
602211-43		C ELECTRO 25V 470UF RS	CEXE1E471A	C120
602211-44		C ELECTRO 100UF RS	CEXE1E101A	C121
602211-45		C CERA 500V 4700 K	CCXB2H472K	C124-C127
602211-46		C MYLAR 100V 0.22MFK(ED)	CMXB2A223K	C202
602211-47		C CERA 1KV 1000 (ED)	CCXB3A102K	C203
602211-48		C MYLAR 200V 0.068UFJ(ED)	CMXB2D683J	C205
602211-49		C CERA 50V 560PF K	CCXB2H561K	C206
602211-50	C	C MYLAR,1.6KV 3000PF J (BUF)	CMXH3C302J	C207
602211-51	C	C MYLAR,1.6KV 4300PF J (BUF)	CMXH3C432J	C208
602211-52		C CERA 500V 0.01UF K	CCXB2H103K	C209 C210
602211-53	C	C MYLAR,200V 0.39MFJ(ED)	CMXB2D394J	C211
602211-54		C MYLAR,100V 0.22MF J	CMXM2A224J	C212
602211-55		C MYLAR,100V 0.1MF J	CMXM2A104J	C213
602211-56		C MYLAR,100V 0.01MF J	CMXM2A103J	C214 C218
602211-57		C MYLAR,100V 4700PF J	CMXM2A472J	C216
602211-58		C ELECTRO,50V 1UF RS	CEXE1H109A	C217
602211-60		C ELECTRO,50V 4.7UF RS	CEXE1H479A	C219
602211-61		C ELECTRO,25V 1000UF RS	CEXE1E102A	C220 C227
602211-62		C CERA 500V 1000 K	CCXB2H102K	C221
602211-63		C ELECTRO,160V 10UF RUF	CEXE2C100A	C222
602211-64		C ELECTRO,50V 10UF RU	CEXE1H100C	C226
602211-65		C ELECTRO,50V 0.01 K	CCXB2H103K	C228 C231
602211-66		C ELECTRO,16V 10UF RS	CEXE1C100A	C229 C332
602211-67		C ELECTRO,16V 220UF RS	CEXE1C221A	C232
602211-68		C ELECTRO,16V 47UF RS	CEXE1C470A	C233
602211-69		C ELECTRO,50V 10UF RS	CEXE1H100A	C235
602211-70		C MYLAR,100V 0.01MF J	CMXM2A104J	C301
602211-71		C MYLAR,100V 0.22MFJ(ED)	CMXB2A224J	C302
602211-72		C MYLAR,100V 0.1MF J	CMXB2A104J	C304

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CBM P/No	Part Description	Vendor P/No	Location
			C305
602211-73	C ELECTRO,25V 47UF RS	CEXE1E470A	C306
602211-74	C ELECTRO,35V 1000UF RS	CEXE1V102A	C307
602211-75	C ELECTRO,35V 100UF RS	CEXE1V101A	C308
			C311
602211-76	C ELECTRO,35V 470UF RU	CEXE1V471C	C309
602211-77	C ELECTRO,16V 100UF RS	CEXE1C100A	C312
602211-79	C TANTAL 35V 0.22K	CTXD1V228K	C401
			C402
			C416
602211-80	C ELECTRO,16V 470UF RS	CEXE1C471A	C403
602211-81	C CERA 500V 1000 K	CCXB2H102K	C404
602211-82	C MYLAR,100V 0.022MF K	CMXM2A223K	C405-410
			C419
			C420
602211-84	C ELECTRO, 16V 10UF RS	CEXE1C100A	C411
602211-85	C ELECTRO, 16V 4.7UF RS	CEXE1C479A	C412
602211-86	C ELECTRO, 16V 1UF SM	CEXE1C109A	C413
602211-87	C ELECTRO, 16V 22UF RS	CEXE1C220A	C414
			C415
602211-89	C ELECTRO, 16V 47UF RS	CEXE1C470A	C417
602211-90	C MYLAR, 100V 0.1MF J	CMXM2A104J	C418
602211-92	C ELECTRO,16V 1000UF RS	CEXE1C102A	C421
602211-93	C CERA,50V 0.01 K	CCXB2H103K	C422
602211-94	C CERA 50V 100PF K	CCXB1H101K	C501
			C503
			C505
602211-95	C CERA 50V 180 K	CCXB1H181K	C502
			C504
			C506
602211-96	C CERA 50V 68 K	CCXF1H680K	C507
602211-97	C ELECTRO,16V 220UF RS	CEXE1C479A	C508
602211-98	C ELECTRO,16V 220UF RS	CCXB1H103K	C509
602211-99	C ELECTRO,160V 47UF RS	CEXE2C470A	C510
602212-00	C CERA 500V 0.01F Z	CCXB2H103K	C511
602212-01	C ELECTRO,16V 47UF RS	CEXE1C470A	C512
602212-02	C CERA 1KV 0.01F Z	CCXF3A103Z	C513
602212-03	C CERA 50V 0.01 K	CCXB2H103K	C603
			C604
			C609
602212-04	C ELECTRO,16V 220UF RS	CEXE1C221A	C605
602212-05	C MYLAR,100V 0.022MF K	CMXM2A223K	C606
602212-06	C CERA 50V 222 K	CCXB2H222K	C607
602212-07	C TANTAL 35V 0.22 K	CTXD1V228K	C608
602212-09	C MYLAR,100V 0.047MF K	CMXM2A473K	C610
602212-10	C TANTAL 35V 0.33 K	CTXD1V338K	C611
602212-11	C CERA 50V 10PF K	CXCH1H100D	C612
602212-12	C TRIMMER TZ03R 200F(4-20)	4850L00300	C613
602212-13	C MYLAR,100V 0.022MF K	CMXM2A223K	C614
602212-14	C CERA 50V 33 K	CXCH1H330K	C616

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CBM P/No	Part Description	Vendor P/No	Location
602212-15	C CERA 50V 27 K	CXCH1H270J	C617
602212-16	C CERA 50V 39PF J	CXCH1H390J	C618
602212-17	C CERA 50V 0.1 Z	CBXF1H104Z	C619
			C701
			C702
602212-18	C ELECTRO 16V 1UF SM	CEXE1C109A	C620
			C805
			C8051
602212-19	C ELECTRO 16V 10UF RS	CEXE1C100A	C621
			C712
602212-20	C CERA 50V 0.01 Z	CCXF1H103Z	C623
			C704
602212-21	C CERA 50V 0.222 Z	CCXF1H223Z	C624
602212-23	C ELECTRO 16V 470UF RS	CEXE1C471A	C703
602212-25	C ELECTRO 16V 47UF RS	CEXE1C470A	C707
			C708
			C709
602212-27	C CERA 50V 150 K	CCXB1H151K	C711
602212-29	C ELECTRO 16V 0.1UF SM	CEXE1C108A	C801
			C8011
602212-30	C ELECTRO 35V 470UF RU	CEXE1V471C	C802
			C8021
602212-31	C MYLAR 100V 0.1MFJ(ED)	CMXB2A104J	C803
			C8031
602212-32	C ELECTRO 16V 1UF SM	CEXE1C105A	C805
			C8051
602212-33	C CERA 50V 1500 K	CCXB1H152K	C806
			C8061
602212-34	C ELECTRO 16V 100UF SM	CEXE1C101A	C807
602212-35	C CERA 50V 220 K	CCXB1H221K	C808
			C8081
602212-36	C CERA 50V 104 Z	CBXF1H104Z	C809
			C8091
602212-37	C ELECTRO 25V 100UF RS	CEXE1E109A	C810
			C8101
602212-38	PCB MAIN AS,CHASSIS A-16	9970190001	01
602212-39	PCB CRT AS,CHASSIS A-16	9970190002	02
602212-40	PCB POWER AS,CHAS. A-16	9970190003	03
602212-41	PCB LED AS,CHASSIS A-16	9970190004	04
602212-42	PCB SOUND AS,CHAS. A-16	9970190005	05